

THE

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ART. I.—MARITIME CANALS.

1. *Les Nouvelles Routes du Globe.* Par MAXIME HÉLÈNE. Paris. 1883.
2. *The Great Canal at Suez.* By PERCY FITZGERALD, M.A. London: Tinsley Brothers. 1876.
3. *Der Panama Canal.* Von HUGO ZOELLER. Stuttgart. 1882.
4. *Bulletin du Canal Interocéanique.* Paris. 1879.
5. *Parliamentary Papers.* Commercial, No. 8. 1883.

IN the eastern and western hemispheres Nature has for once repeated herself, and reproduced in duplicate one of the most singular features of the configuration of the globe. In both alike, the southern continent is linked to the northern terrestrial mass by a bridge of land so slender that from its crown to the parted seas on either hand is but a long day's march, and the roar of heavy ordnance may be heard from shore to shore. Yet these narrow causeways served for ages to debar Europe from all maritime intercourse alike with the far East and the far West, and have, down to the present century, compelled the mariner to double the two great southern peninsulas, by a voyage of over three thousand miles, to gain the farther seas beyond. Now both these barriers are bidden to unclothe before the "Open Sesame" of the magician of modern science, and the decree already accomplished in the one case, is, in the other, in process of execution.

The intercourse of Europe with the remote regions of the earth has been the most potent factor in her history, and nations have waxed and waned with the shifting of the maritime highways past their shores. As long as the East—the first magnet

of thought and enterprise—was reached only by way of the Mediterranean, the States on its littoral had a monopoly of wealth and greatness. The almost simultaneous discovery of the great sea routes to India and America reversed this order of things, transferring the sceptre of commerce to the ocean Powers; and Spain and Portugal, England and Holland, enthroned on the western main, were those who next

Took toll of all the earth.

The creation of an artificial strait at Suez has once more turned the stream of maritime commerce into its ancient channels, and there are not wanting signs that the Mediterranean cities may profit by the change, to the detriment of the Atlantic ports. Whether the severance of the American isthmus will cause a fresh oscillation of the pendulum, bringing back the trade of the extreme East of Asia to the extreme West of Europe, and thus restoring to the latter its former commercial supremacy, it is perhaps too soon to speculate. Such, however, are the issues involved in modern schemes for forcing the continental barriers and shortening the circuitous tracts of ocean navigation by the creation of the new routes of the globe.

Through ship-canals, or artificial waterways, navigable from sea to sea, are divided into three categories:—

1. Canals proper, on the principle of those used in inland navigation, in which differences of level are surmounted by a system of locks or water-stairs, requiring a large supply of water from natural reservoirs.

2. Channels scooped as sunken troughs below high-water level, defended at both ends by double-acting locks to keep the canal at low-water level at all tides.

3. Artificial straits, or open channels, trenched from sea to sea, without sluices, locks, or gates.

High-level canals, forming the first of these classes, were the earliest attempts of modern engineering in the direction of over-land navigation. The French, as usual, led the way, by the construction, as early as 1681, of the Languedoc Canal, to connect, by a line of 140 miles, points on the Mediterranean and Bay of Biscay, previously separated by a maritime passage of 2,000 miles. Its summit-level of 600 feet is attained by 100 locks, and it is supplied with water by over 50 aqueducts. The Forth and Clyde Canal transports vessels drawing not more than 8½ feet, right across Scotland by 35 miles of inland navigation, and the Crinan Canal, cutting off the Mull of Cantyre, substitutes a passage of 9 miles for one of 70.

But a more considerable work than these is the Caledonian Canal, constructed by Telford, and opened to traffic in 1823.

The natural trough of the Great Caledonian Glen is occupied by a chain of lakes, furnishing $37\frac{1}{2}$ miles of navigation, and reducing the artificial channel to less than 23. A series of 24 locks, 8 of which, termed "Neptune's Staircase," form a consecutive flight of steps leading down to the sea at the western end, represent a rise of 102 feet, over which ships of 160 feet long, 38 feet beam, and 17 feet draught are transported, with a saving of 400 miles of dangerous coast navigation.

The second class of artificial waterways, those excavated at a level below that of high-water, is represented by one conspicuous example—the Amsterdam, or Y Ship Canal, connecting the Dutch capital on the Zuyder Zee with the German Ocean. This channel, inaugurated on November 1, 1876, traverses in its course of 26 kilomètres the large tidal lagoons of the Wyker Meer and Lake Y, and performing here the function of a drainage canal, has enabled their united areas of 12,000 acres to be reclaimed from the sea. The embankments of the lakes used up the soil withdrawn from other places, principally from a great gap cut for 3 miles, with a maximum depth of 78 feet, through a wide rampart of sand-hills belting the German Ocean. A mass of 6,213,000 cubic yards was here extracted, while a second cutting, through a promontory between the two lakes, yielded a mass of 327,000 cubic yards.

But the principal difficulty was in the construction of the sea-barriers at either end. The Canal Company being bound, in order to meet the requirements of drainage, to keep its level not less than 1 foot 7 inches below that of average high-water, the shipping within the sluices may be seen at some tides afloat in a water-tight dock several feet lower than the surface of the sea immediately outside. The strength of resistance required in the double-lock gates to sustain this pressure may be easily imagined. A great dam, 4,265 feet long, was, moreover, necessary to close the mouth of Lake Y against the Zuyder Zee. Clay and sand, defended at the sides by quantities of fascines, formed the framework of the structure, which was then cased and covered with blocks of basalt. The dimensions of the canal are 26 mètres wide at bottom and 58 at top, with a depth of 8 mètres.

But it is in the construction of the third and last class of canals, which may be best defined as artificial straits, or open salt-water channels from sea to sea, that modern engineering has achieved its greatest triumphs. The novelty of the idea, notwithstanding its simplicity, was startling to many minds, and doubts as to its feasibility were only finally set at rest by the creation of the Egyptian Bosphorus under guidance of the genius of M. de Lesseps. The channel, it was urged by some, must inevitably silt

up from the deposit of sea-drift within its narrow way, while others objected that a difference in level between the two seas, causing a violent current from one to the other, would give rise to perturbations damaging to the embankments and protective constructions of the canal. To the incredulity of M. de Lesseps' fellow-craftsmen was added the implacable hostility of English statesmanship, on grounds which subsequent experience has shown to have been well-founded. Lord Palmerston, with that sagacity which he masked under an appearance of frivolity, based his uncompromising opposition on the prophetic forecast, which recent events have gone far to justify, that the execution of the project must inevitably lead to the annexation of Egypt by England. The possible diversion, on the other hand, of the stream of Eastern commerce from British shores furnished an equally cogent argument against the intended Canal from a purely mercantile point of view.

Said Pasha meantime, immediately on his accession to the Viceroyalty of Egypt, had granted large powers to M. de Lesseps in a deed of concession executed on November 30, 1854; and was so enamoured of the scheme that he declared to the American Consul-General, at a reception of the foreign representatives in Cairo, "I shall queen the pawn against you Americans. The Isthmus of Suez will be pierced before yours."

The diplomatic battle, however, had still to be fought out at Constantinople, and here the "Great Eltchi," as admiring Orientals designated Lord Stratford de Redcliffe, was instructed to bring all his vigour and energy to bear against the promotion of the undertaking. Its accomplishment was delayed for years by the refusal of the Sultan's firman, but M. de Lesseps had a powerful advocate in his relative the Empress Eugenie, and the unflinching support of France at length overcame the opposition to him.

On November 5, 1858, the Suez Canal Company was formally constituted under a concession for 99 years, expiring in 1968. The original capital of £8,000,000 sterling was created by the emission of 400,000 £20 shares, on which £2 were paid on subscription and £6 on allotment, with an understanding that no further call was to be made for two years. The first estimate of cost at £6,480,000 sterling was subsequently increased to £8,000,000, to cover the payment of dividends out of capital, on the unsound principle prevailing on the Parisian Bourse. The actual cost proved to be more than double even the larger estimate, as it is believed to have fallen little short of £20,000,000 sterling. In addition to the subscribed capital, the Company received a sum of £3,800,000, paid by the Khedive, Ismail Pasha, on the award of the Emperor of the French, as compensation for the

partial revocation of the concession of his predecessor; grants of land and the right to employ forced labour being the principal privileges withdrawn.

The struggle thenceforward lay with Nature rather than with man, and proved the easier of the two. The selected channel of 88 miles traversed what were then great salt marshes, occupying depressions afterwards converted into lakes by the influx of the sea. Lake Timseh, the lesser of these, is 5 miles long, while the basin of the Bitter Lakes is 40 leagues in circumference, with a diameter of 23 miles, and contains 440 billion gallons of salt water. Fourteen miles of the channel were here excavated almost entirely by dredging, great barges with special machinery being employed for the purpose. A natural depression, 8 miles long, required little manipulation, and the remaining 66 miles were excavated by spade work. The soil was favourable, as even where not alluvial, it was mostly loose and friable, while only at two points, El Guisr and Serapeum, forming the sills between the lakes, did the sandy dunes attain a height respectively of 59 and 36 feet. In the cutting of these gaps, 40,000 workmen were employed, and the baskets of soil removed hence would, if placed end to end, have made thrice the circuit of the globe.

The steam-dredges carried off 2,000 to 3,000 cubic mètres each per day, and as 60 were employed, the sum of their work was 2 million cubic mètres (about 2,763,000 cubic yards) a month. This mass would, according to M. de Lesseps, cover the whole of the Place Vendôme to a height five times that of the houses; while the entire cube displaced by the Canal would form a pyramid with a base a kilomètre square and a height of 225 mètres.

Through sluices cut on the Mediterranean side in February, and in the Red Sea channel in July, 1869, the lake basins were filled in October of that year, and thus the ancient Eastern prediction was realized, that the waters of the Sea of Coral (Mediterranean) should one day mingle with those of the Sea of Pearls (Red Sea).

Few men have achieved so great a personal triumph as that of M. de Lesseps, when, on November 17, 1869, a fleet of 130 ships sailed, amid salvoes of artillery, over a passage where the sands of the desert had lain from the beginning of the world. Nothing was wanting to give impressiveness to the ceremony on a soil where the greatest achievements of ancient and modern civilization were brought face to face amid the solemn desolation of the desert. The barriers of prejudice seemed broken down with those of Nature, and for the first time perhaps in history, a blessing was invoked on a common enterprise according to the rites of the Mohammedan and Christian faiths. A reign of uni-

versal fellowship and goodwill might have been fittingly inaugurated by the subsequent festivities, in which the sumptuous hospitality of Ismail Pasha realized all the gorgeous traditions of the East.

The Canal thus completed was a channel 88 miles long, with a nominal depth of 26 feet, a width at bottom of 72 feet, and at surface of from 197 to 325 feet, according to the degree of slope required by the nature of the soil. This accommodation is sufficient for a steamer 400 feet long, with 50 feet of beam, while sidings at distances of 4 or 5 miles enable vessels to pass each other. Three days are usually calculated for the transit, allowing for delays from various causes. Each of the traffic superintendents at Suez and Port Said has before him a perfect model of the Canal, and as the entry of a ship is telegraphed to him from either end, he tickets a miniature vessel with her name, and moves it from station to station as her progress is reported to him. He has thus constantly before his eyes a complete representation of the Canal, with the state of traffic in it at any given moment.

The dues paid by shipping are admittedly high, and the scale on which tonnage is calculated has given rise to frequent disputes with the Company. Ten francs per ton of registered tonnage is the first item, and to this are added 10 francs a head for passengers, and 20 francs per decimètre (4 inches) for vessels drawing more than 20 feet, as a charge for pilotage. Thus the transit of an Indian troop-ship with her full complement of men on board, costs the Government about £1,780; and Canal dues formed an item of over £95,000 in the expenses of the Egyptian expedition of 1882.

Heavy as these charges seem, they are insignificant compared with the economy effected by the abridgement of the voyage. The difference of 5,135 miles between the Canal and Cape routes from Point de Galle to the British Channel, represents a saving in time of 36 days, and as the expenses of a vessel of 4,000 to 5,000 tons are roughly estimated at £100 a day, the diminution of cost can be easily calculated. Hence the Cape route to the East has been practically abandoned by steam navigation, though it is still followed by sailing vessels, in order to shun the baffling winds of the Red Sea and Levant.

M. de Lesseps has laid it down that the trade between East and West doubles every ten years, but that through the Suez Canal has increased in a much more rapid ratio. In the first 5 years it had quadrupled in amount, while it multiplied twelve-fold as measured by receipts, in the 12 years between 1870 and 1882. While in 1870 it was used by 486 ships, with a total tonnage of 435,911, representing receipts to the amount of

5,159,327 francs, the number of ships had grown, in 1882, to 3,198, the tonnage to 7,122,125, and the receipts to 60,515,882 francs. The very large increase in the latter year, due to the Egyptian expedition has not, however, been maintained, and the returns for 1884 give 5,871,500 as the figure of tonnage, and 62,378,115 francs as that of receipts. A reduction of 50 centimes in navigation dues came into force on January 1, 1884, and the abolition of the pilotage tax in July of that year.

The British flag had, according to the voluminous report laid before Parliament in 1883, continued to maintain its preponderance, covering in 1880 nearly 80 per cent., in 1881, 82 per cent., and in the following year 81 per cent. of the entire transit trade. The slight relative falling off in the latter year, ascribed to the increase in larger proportion of the trade of France, Germany and Holland, has since continued, and the latest Blue Book, presented May 27, 1885,* give the proportion of British shipping in 1884 as 76 per cent., while the French is $9\frac{1}{2}$ of the total. That the decrease is relative, not absolute, is proved by the figures of 2,329,000 and 3,371,000, for sum of British tonnage in 1880 and 1881 respectively, while the first nine months of 1882 showed a further expansion of 643,000 tons.

Of all vessels homeward-bound to Britain from the East, including Australia, about 42 per cent. (842,000 tons) and of outward-bound shipping, 38 per cent. (1,063,000 tons) paid dues to the Canal in 1880. Of total British trade about 9 per cent., roughly estimated at a value of £60,000,000, passed through the Canal in the same year, while in the year following the per centage rose to 13. Half the British imports from India and China, amounting to £26,701,000, and 45 per cent. of exports thither, travel by the Isthmus route, but the Australian trade for the most part avoids it, homeward-bound shipping only, and of that no more than 5 per cent. traversing the Red Sea.

The rival routes are patronized by different classes of commodities; thus tea, coffee, and wheat from British India follow that of Suez, jute and rice that of the Cape. Of cotton imported from India, three parts came by the shorter, to one borne by the longer route. It is stated, as an illustration of the rapidity of communication by the former, that the raw cotton of India may be brought to England, there woven into cloth, and returned to its native country in the shape of manufactured goods within seventy days; while transport is so cheap that Indian wheat can be imported into England for less than 20s. a ton.

The question whether British trade has, on the whole, suffered,

* Parliamentary Papers. "Commercial, No. 14 (1885)."

as anticipated, by the Canal, is answered affirmatively as follows in the Report before us : *—

The natural tendency of the Canal is to create a direct trade between Mediterranean countries and the East at the expense of our *entrepôt* trade, and the annexed tables are designed to show whether, and how far, such a diversion may have taken place in the case of some leading "Oriental articles," namely—raw silk, raw cotton, tea and coffee. It would appear that, comparing the figures of recent years with those which we obtain for two or three years about the date of the opening of the Canal, the exports of these articles from the United Kingdom to the Continent have, as a rule, either diminished, or have not increased with the natural growth of the foreign trade of these countries. The indication of the figures seems clearest in the case of raw silk, which is a purely Oriental article. The re-exports of this article from England to the Continent have diminished largely. As regards raw cotton and coffee it is less easy to draw a sure inference, because these articles come to the United Kingdom largely, and cotton mainly, from non-Eastern countries, and we know that the direct export to the Continent of raw cotton at least, from these countries, as well as from the East, has increased to the detriment of the English *entrepôt* trade. Still the figures show a decline in the re-export of these articles from England to the Continent. . . . The facts of these tables, therefore, taken altogether, tend to show that the influence of the Canal is adverse to the *entrepôt* trade of the United Kingdom.

At the same time while the re-exports of "Oriental articles" from the United Kingdom to the Continent have been stationary or declining, the direct trade between Eastern and Mediterranean countries, principally Austria, France, and Italy, has materially increased since the Canal was opened. It appears that the trade between China and the Continent generally has greatly increased since the opening of the Canal. The *amounts* of the trade are still small, but the change, whatever it amounts to, as far as it is due to the Canal, seems to show the effect of an influence adverse to our *entrepôt* trade.

The shortening of the voyage, moreover, despite its ultimate result in stimulating trade, has a tendency in the first instance to lessen the demand for shipping as well as for the labour of merchant seamen, and for capital to hold the cargoes in transit. It requires indeed no proof to show that a smaller amount of expenditure in all these branches will suffice to transport goods by a shorter route to their destination ; and that economy in carriage, unless it produce corresponding expansion of trade, means restriction of the carrier's business.

The Suez Canal Company, like all monopolies, is unpopular with its customers, and British shipowners in particular complain of its exactions as exorbitant, and resent the exclusively French

* Parliamentary Papers. Commercial, No. 8 (1883). Suez Canal.

character of its management and jurisdiction. Hence the terms of the original concession to M. de Lesseps have been narrowly scrutinized in order to ascertain if the *pouvoir exclusif* thereby conferred on him for the cutting of the Isthmus, has absolutely excluded all competition. The abortive convention negotiated with the Company by the English Government in 1883, met with general disapprobation, and the relief granted to shipowners was so slight a return for the prolongation and confirmation of the Khedivial concession, that it was ultimately cancelled to avoid its rejection by Parliament.

No formal agreement was then concluded, but a slight reduction in navigation dues and pilotage charges was made last year, while an International Consultative Committee met in Paris to discuss means for adapting the Canal to the increasing exigencies of commerce. The plan of widening and deepening the existing Canal throughout, was unanimously endorsed on February 9, 1885, in preference to the counter project of cutting a second channel. The floor and surface widths are to be increased respectively to 70 and 82 mètres, and a uniform depth of $8\frac{1}{2}$ mètres below low-water mark to be maintained. The estimated cost of the works is 203,000,000 francs, and they are to be executed by contract within two years. Meantime some machinery for cleansing the Canal is urgently required, as passengers through it report that it is fast becoming a noisome ditch, from the accumulation, in its shallow bed, of the refuse of passing ships. Unless some remedy be found for this evil, the danger of its becoming a centre of infection to Europe scarcely needs to be pointed out.

Powerful as has been the action on commerce of the Isthmian channel, its disturbing influence on international relations threatens to be equally great. Its political history may be said to have begun with Lord Beaconsfield's purchase of the Suez Canal shares held by the Khedive, amounting to nearly half of the entire number. The transaction was completed on November 25, 1875, the money, £4,000,000 sterling, being advanced by Messrs. Rothschild at a commission of $2\frac{1}{2}$ per cent., as Parliament was not sitting at the time. By a previous convention with the Company, the Khedive had, in consideration of certain rights—fishing the lakes, navigating and levying tolls on the fresh water canals being amongst them—renounced his claim to a dividend on these shares for a period of twenty-five years, expiring in 1895; consequently interest at the rate of 5 per cent. on the price paid for them, in the interim chargeable on the revenue of the country, has since formed an item of the many disastrous complications of Egyptian indebtedness. The claim has hitherto been satisfied by the payment of two half-

yearly instalments of £100,000, due on June 1 and December 1; but the reduction of the rate of interest from 5 to $4\frac{1}{2}$ per cent. was one of the stipulations of the Convention on Egyptian Finance, agreed to on March 17, 1885. The number of the Khedivial Shares is 177,642, and the actual coupons, contained in four zinc cases, were lodged in the Bank of England on January 1, 1876.

This purchase, though in form a purely commercial transaction, served at least to emphasize the vital importance to British interests of the maritime highway to the East. That this highway should run for 100 miles through a narrow strait, held in monopoly by a great commercial company under the patronage of a rival Power, is, it must be confessed, an unmitigated misfortune to England, leaving her—to borrow a metaphor from the backgammon board—with a perpetual blot in her tables, which the jealousy of other nations prevents her from covering. The unhappy story of British intervention in Egypt, with all its resulting embarrassments, is a sufficient illustration of the political revolution wrought by M. de Lesseps' trench through the desert.

Already the thinly veiled hostility of other Powers has formulated a project tending more or less to the neutralization of the canal, a measure fraught with dangerous consequences to Great Britain. The draft treaty decided on by the Sub-Commission on the Suez Canal, for presentation to the Commission, would, if ratified without the adoption of the amendments proposed by the English representative, hand over the control of the Canal to an International Commission, ready on all occasions to combine against the interests of England. In the present temper of Europe it is possible that great diplomatic pressure will be brought to bear to enforce the acceptance of the scheme in its most disadvantageous form.

To Russia belongs the credit of the most recently completed ship-canal, that from Cronstadt to St. Petersburg, converting the latter from an inland haven into a seaport. The works, begun in 1878, were completed in the spring of 1885, and the inauguration was celebrated on May 27, with much royal pomp, the whole Baltic fleet of 111 ships assisting. The mass excavated was 830,000 cubic fathoms, and the cost about £1,026,540 sterling. It is, however, a work of merely local importance, and as it does not form a new channel from sea to sea, is scarcely entitled to be called a true maritime canal. To the same class will belong the much disputed Manchester Ship Canal, the construction of which is only a question of time, but which is designed to create, not an ocean thoroughfare, but an artificial seaport.

The triumphant success of the great experiment at Suez naturally drew the attention of speculative engineering to the

fellow isthmus of the other hemisphere, and the audacious genius of M. de Lesseps was ready to formulate a project for opening here a second great ocean-gate from east to west.

Here, indeed, the necessity for overland navigation had suggested itself to enterprising minds in an earlier age. A Spanish monk of Novita had actually connected the waters of the Atlantic with those of the Pacific, by the short Canal of Raspadura across the divide between the Atrato and the Southern San Juan, tributaries respectively of the two oceans. This passage, constructed in 1783, is still used by native boats during the rainy season; but is on the Continent of South America, rather than on the Isthmus.

A modification of this route has nevertheless been among the projects recently mooted, and an attempt was made in 1845 to form a company for the construction of the Atrato-Naipi Canal, with a length of 180 miles, 2 locks, and a tunnel $2\frac{1}{2}$ miles long. The lower course of the Atrato would have formed its bed from the Bay of Choco, a large inlet of the Gulf of Darien, upwards to the confluence of the Naipi, the course of the latter stream being then adopted to its source, whence a channel would have been cut through the water-shed to the Bay of Cupica on the Pacific shore.

This scheme may be looked on as extinct, but not so the next on the list—that which, under the name of the Nicaragua Canal, has caused considerable diplomatic friction between the Governments of Great Britain and the United States. By the Clayton-Bulwer Treaty, concluded between these Powers in 1850, either was precluded from acquiring a monopoly of this projected route, as well as from constructing fortifications along its course, or assuming dominion over Nicaragua, or any part of Central America. It is undeniable that all these stipulations are violated by the Nicaragua Treaty submitted to Congress in March, 1885, but left in abeyance for the moment, by the refusal of the Senate to ratify its provisions. These were, briefly, that the United States Government should construct an inter-oceanic ship canal in accordance with previous surveys, while the State of Nicaragua undertook, in consideration of half the tolls on the new waterway, to cede to the United States in perpetuity a strip of land three miles wide along its banks on either side, and both its terminal seaports. The absolute ownership of the Canal would thus have been vested in the United States, with the power of excluding all rival flags from its waters, either by direct prohibition or by the imposition of differential dues. Although the treaty in this unrestricted form will probably never take effect, the scheme embodied in it will doubtless be carried out under other conditions, and is, therefore, worth examining in detail.

A glance at the map will show that the breadth of the Isthmus

of Central America is cut in two, though by no means at its narrowest point, by a large sheet of fresh water; that a considerable river flows thence eastward to the Atlantic, and a smaller stream effects partial communication with the Pacific. These natural facilities counterbalance to a certain extent the greater length of transit imposed by the expansion of the Isthmus at this section to a width of 180 miles, while they prescribe the construction here of a fresh water rather than a maritime canal.

The gigantic reservoir of Lake Nicaragua, with a drainage area of 8,000, and a surface of 2,700 miles, will furnish, it is calculated, thirty-eight times the possible maximum of water required, and its expanse, with a central depth of 15 fathoms, requiring no artificial manipulation, provides a natural channel for 56½ miles of the entire distance to be traversed. Raised 128 feet above the Atlantic, and 134 above the Pacific level, while the divide between it and the latter sea is at a still higher elevation, the ascent here would have to be surmounted by a series of 10 locks, and the rugged neck of land between lake and ocean cut through by an artificial channel to an average depth of 54 feet in the first 7 miles. The harbour of Brito, at the mouth of the Rio del Medio, would form its Pacific terminus, guarded by a tide-lock from the sea.

On the Atlantic side, Nature has done more to assist the engineer, for here the San Juan del Norte provides a channel of 120 miles from the lake to the sea, navigated by enterprising Spanish captains, some three centuries ago. It is expected to afford nearly 64 miles of slack water navigation from its head in Lake Nicaragua downwards to its junction with the San Carlos, four great dams, however, being required at this point, and at the Rapids of Castillo, Balas, and Machuca, to turn each of these obstacles by a short canal section with one lock. The windings of its lower course will have to be abridged by a canal from the San Carlos junction to its mouth. As the latter river, moreover, appears to be its evil genius, from the quantities of detritus brought down by it, it is proposed to divert it into another river, the Colorado, which flows into the sea some 18 miles from its mouth. So rapid has been the silting up of the main stream from the sediment discharged by the San Carlos, that while it was formerly navigable throughout by steamers, with an average depth of 17 feet, it is reduced below the junction, to a shallow expanse 324 feet wide and only 6 inches deep. The harbour of Greytown, or San Juan de Nicaragua, at its mouth, in which thirty years ago, vessels of war were able to ride at anchor, is now choked with shoals and sand-banks from the same cause.

The plans for the canal give it a cross-section of 72 feet at bottom, and 150 at top, with a depth of 27 feet. For the

21 locks a length of 400 and a width of 72 feet are allowed for, with a lift of from 8 to 10 feet. The cost, estimated at one time as high as £15,900,000, would seem to have been since reduced by Mr. Menscal, an engineer in the service of the United States, to £12,500,000 sterling. The actual outlay would probably largely exceed either figure, but would be quickly repaid could a monopoly of the transit traffic be secured.

This, however, would scarcely be the case, as a rival undertaking is already in process of execution. M. de Lesseps, the champion of heroic engineering, has forestalled the Americans on their own soil, and has achieved at least the initial stages of his second great enterprise. Regarding an isthmus as a foe with which no compromise is permissible, he naturally favours the total severance of the continental link as at Suez. Two of his objections to the Nicaragua scheme seem plausible. In the first place, he pronounces the inland navigation system insufficient for the requirements of a great ocean thoroughfare, the delay in the passage of the locks, estimated by him at half an hour for each, tending to block the traffic by limiting the transit to forty-eight ships a day. He points out, in the second place, the liability of the lock machinery to dislocation and derangement from volcanic disturbances of the soil, here more thickly studded with craters—of which twenty-four are located in Nicaragua—than any other portion of the earth's surface. These obstacles may perhaps prove insuperable, but otherwise the construction of the Nicaragua Canal is merely a question of money, since it presents no extraordinary natural difficulties.

Not so the counter project of M. de Lesseps, which will require works so prodigious that nothing short of their successful completion will suffice to demonstrate their possibility. The precedent of Suez has no application here, as the two isthmuses have nothing in common save their similarity of position as bridges between the northern and southern hemispheres.

On the strand, whence Nunez Balboa, three centuries and a half ago, first saw a new-world horizon unroll before his dazzled gaze, a town has sprung up which has ever been the asylum of the desperadoes of Spanish America. From the sack of old Panama in 1670 by Morgan the buccaneer, until last spring, when only the landing of an American force saved its modern namesake from a similar fate at the hands of outlaws scarcely less ferocious, the annals of the city by the Pacific have been red with rapine and ruin. The same may be said of Colon, or Aspinwall, the corresponding town on the Atlantic side of the isthmus, where a heterogeneous gathering of the off-scouring of all nations dwell together in a swamp-bound settlement on a

pestilential beach. Within a rifle-shot of the landing stage the foul and noisome streets plunge abruptly into the surrounding morass, where cattle, kneedeep in water, browse on the succulent aquatic vegetation that forms a floating prairie.

Yet on these two ports—Colon and Panama—converge from either half the globe the radiating tracks of commerce across the two great world-seas, while a railway transit of four hours from one to the other forms the connecting link between the opposite ends of the universe. To replace this land transport, with all the attendant difficulties of double trans-shipment, by a mighty trench cut for forty-five miles from sea to sea, is an idea which by its boldness and simplicity commends itself to enterprising spirits.

The first practical step towards its accomplishment was the survey of the isthmus, which was effected by an International Technical Commission of engineers, with M. de Lesseps at its head, in a fifty days' examination, from December 25, 1879, to February 14, 1880. On the basis of their reports, a concession having been obtained from the Colombian Government, a joint stock company was formed in December, 1880, under the title of *Compagnie Universelle du Canal Interocéanique*, with a nominal capital of 300,000,000 francs in 600,000 shares of £20 each. The estimates furnished by various engineers at different times show a wide discrepancy, some approaching and even exceeding the figure of 1,000,000,000 francs, or £40,000,000 sterling, being double the cost of the Suez Canal. M. de Lesseps' lowest calculation of 660,000,000 francs would require a large increment in the light of later experience, even according to the views of that sanguine projector.

It is not easy to understand why the offer of MM. Couvreux and Hersent, the great French contractors, to carry out the work for 512,000,000 francs (£20,480,000) should have been rejected, particularly as they were afterwards entrusted with the execution of its earlier stages at a commission of 6 per cent. One of the first financial operations of the Company was the conclusion of a convention with the Panama Railway Company, whose monopoly of the ground and right of way clashed with their objects. A partial amalgamation was effected by the purchase of a portion of the railway stock, with the understood right to take over at any time half the shares, so as to control the management. Thus the ground was cleared for the commencement of the actual works of construction.

The calculations as to the amount of these were nearly as various as those of the approximate cost. Their basis is the *cube à extraire*, or mass of solid matter to be removed, and the first figure of 46,150,000 cubic mètres were subsequently raised to

75,000,000, of which 27,734,000, rather more than a third, were set down as *roches dures*. The mass of displacement would thus be almost exactly equal to that of the Suez Canal, shorter length being counterbalanced by greater depth of cutting on the American Isthmus. It is further calculated that about a fourth of the mass—classified as 12,005,000 cubic mètres loose alluvium, 300,000 hard earth, and 6,786,000 rock—would be removed by dredging and blasting under water, while the remainder—divided into 27,500,000 loose earth, 825,000 soft stone, and 27,734,000 hard rock—would be dry excavation by spade labour and boring-engines on land.

As M. de Lesseps did not hesitate to declare that the Panama Canal would be "easier to begin, finish, and maintain than the Canal of Suez," it is necessary to examine the nature of the work so lightly spoken of.

The first of the herculean tasks confronting the projectors is the retention or deviation of the Rio Chagres, a tameless mountain torrent on the scale of a river, which, intersecting the proposed bed of the canal at various points, would discharge into it, when swollen by tropical rains, 1,600 mètric tons of water a second, or four times the volume of the highest flood ever measured on the Thames. It is obvious that a navigable canal must not be liable to invasion by these furious inundations, which, fed by an annual rainfall of over 120 inches, raise the level of the river in some places by 11 mètres in about as many hours. Hence some means of controlling or diverting the flood-waters of the Chagres is a *sine quâ non* for the construction of the Panama Canal. A stupendous embankment, closing the mouth of a lateral valley, through which the torrent leaps down at right angles to the track of the canal trench, is the plan adopted for its defence against its unruly neighbour. The scale of the proposed retaining-dam may be judged from the estimate of its mass at 20,000,000 cubic mètres, with a cross-section of 960 mètres at base, 240 mètres at summit, a height of 45 mètres, and a length of near a mile. This mighty barrage will hold a milliard cubic mètres of water, suspended on the flanks of the mountains in a colossal basin 26 miles in length, whose capacity is perhaps more forcibly presented to the imagination by the statement that if it had been filled at the rate of a cubic mètre a minute since the Christian era it would not begin to overflow until the year 1903. Tunnels pierced through the buttressing hills, with a possible discharge of 200 cubic mètres a second, will relieve the artificial lake of its surplus waters, conducted at an equable rate into a lateral canal of deviation.

The second cyclopean task demanded by the Panama Canal

is the cutting of the Culebra Col, whose summit is 87 mètres above the sea. A titanic water-tunnel, by which the largest ships would have been carried under the roots of the Cordilleras, was the alternative first proposed, but was ultimately rejected in favour of the *tranchée à ciel*, or open cutting. Instances are not wanting of similar works on a scarcely less gigantic scale, for the great Mexican gap of Huehuetoca is 20 kilomètres long and 50 to 60 mètres deep, and that of Gabelback in Bavaria has a length of 730 and a depth of 27 mètres. At Culebra, however, the cloven cliffs will tower nearly 350 feet above the great trough scooped between them, from which a mass of 18 to 20 cubic mètres will have been extracted. The barrage of the Chagres will supply water-power to work the boring-engines at Culebra, while the soil removed thence will be transported to Gamboa to form the embanking dyke.

But over and above these foreseen and calculated difficulties, two comparatively disregarded obstacles threaten to attain unexpected proportions. The first of these is the unhealthiness of the climate, which decimates the labourers, and renders the prosecution of the undertaking, at times, almost impossible. The Panama fever is a marsh-ague of a violent though intermittent character, accompanied by enlargement of the liver and causing great lassitude and debility. Quinine seems to produce little effect on it, and death often ensues from exhaustion. The mortality among the workmen and *employés* is very large, though less than among those employed on the construction of the Panama Railway.

Even greater is the difficulty occasioned by the spongy character of the soil in the lower levels, where the glutinous ooze furnishes no stable foundation for works of construction. It is owing to this cause that the operations have, it is said, in some places been brought to a standstill, and that M. de Lesseps has been unable to fulfil his confident promise of opening the first section—six and a half miles of the canal—in April, 1885.

His estimate of six years as the time required for the completion of the passage is still less likely to be verified, judging from the rate of progress since Mdlle. Ferdinande de Lesseps exploded the first mine on the Culebra Col, on January 1, 1882.

The principle on which the works are now being executed is that of separate contracts for the several sections, a time limit being imposed under penalty of a heavy forfeit. The contract for the length of 13 kilomètres, from Colon to Gatun on the Atlantic side, has been entrusted to an American Company, their engagement being to excavate 6,000,000 cubic mètres at 1 franc, 50 cents (1s. 3d.) the mètre, within five years. Cal-

culating the rate of excavation at 7,500 mètres in a day of ten hours, which, with double relays of labourers, could be raised to 10,000 mètres, the contractors believed some time ago that they could fulfil their engagement within two years. This calculation, recent experience, it is to be feared, has gone far to falsify.

Again, in the *Times* of December 20, 1884, it was stated, in a telegram from Panama, that a contract had been signed with a London firm to cut 15,000,000 mètres of the Culebra section, the cost here, enhanced by rock-blasting, being under 8 francs a mètre, the time limit two years. It was added that a large force of European workmen had been ordered, that the dry season had commenced, that the health of the labourers was good, and that the works were progressing. Other advices by no means confirm this optimistic view, and very sinister rumours have been circulated as to the progress of the canal.

The works hitherto executed, although of a sufficiently formidable character, may, to a great extent, be described as preliminary operations. Such was the task of disforesting a wide belt across the Isthmus, in most places very thickly wooded. Such, too, was the creation of working stations for the twelve sections, the provision of accommodation for labourers, and the installation of varieties of machinery, excavators, waggons, steam-dredges, boring and other engines. At Colon, the population has increased from 2,000 to 12,000, and a port of entry, called Christopher Columbus, has been formed by the construction of a terreplein, with a surface of 74 acres, and a quay frontage of 875 yards. Here a staff of 3,000 workmen have been employed, out of a total of 15,000, which it was said the Company could easily increase to 40,000. The desolate Culebra Pass has become the site of a busy village of fifty houses, with workshops, magazines, hospitals, and stores. Here dynamite is used with great effect, and M. de Lesseps recently recounted how 30,000 square mètres of soil had been blown away by a single charge. At the Paraiso station 800 workmen were employed, and this number was to be doubled in the dry season. On this section, down to the beginning of 1884, 200,000 cubic mètres had been withdrawn, while at the neighbouring station of Imperador, the cube of excavation at the same date was 500,000 cubic mètres.

The labourers employed are principally negroes from Jamaica and the Antilles, who, paid by the number of loads carried, can easily earn 5 to 6 francs a day. On the Culebra cutting and other rocky portions of the line, compressed air perforators are used, the motive power being supplied by water descent, obtainable from the barrage of the Chagres. The actual progress made down to January, 1884, may be measured by the total cube of extraction, which then amounted to 3,340,534 cubic

mètres, or about a twenty-fourth part of the entire mass to be removed.

The finances of the Company can scarcely be very flourishing, and it will probably have to be reconstituted with fresh capital before the completion of the undertaking. By the payment of interest on shares at the rate of 5 per cent., while receiving no profits, it is obvious that the whole original paid-up capital would be absorbed in twenty years, while in the four and a half years already spent, it must be considerably diminished. As it is a work that must be absolutely unremunerative until completed, it is obvious that the surplus expenditure caused by mere delay must be a disturbing element in the original calculations, even were all other circumstances as favourable as anticipated.

The total length of the Panama Canal from the Bay of Limon on the Atlantic, to the anchorage of Flamenco in the Bay of Panama, is 73 kilomètres or 45 miles. Its proposed dimensions are 22 mètres wide at bottom and 56 at top, with a depth of $8\frac{1}{2}$ mètres. A minimum radius of 2,000 mètres is prescribed for its curves, and the slope of the banks will naturally vary with the material composing them.

An annual transit of 6,000,000 tons of shipping is anticipated by its projectors, yielding, at the rate of 15 francs a ton, a yearly revenue of 90,000,000 francs, which would give a dividend at the rate of ten per cent. on a capital of 900,000,000 francs, or £45,000,000 sterling. The new route would abridge the sea voyage from London to San Francisco by 3,500 leagues, to the Sandwich Islands and Sydney by 2,800 and 2,200 leagues respectively, and that from Bordeaux to Valparaiso by 1,400 leagues. Its effect in stimulating traffic would indeed be incalculable, and this certainty will doubtless lead to its eventual completion, though after untold millions of money and hecatombs of human lives have been sacrificed to it.

The crusade against isthmuses is spreading so rapidly, that before very long there will scarcely be one left intact on the surface of the globe. The French talk magniloquently of a mighty plan for "the suppression of Gibraltar" by a short-cut across France, from Bordeaux to Narbonne, the length being estimated at $253\frac{1}{4}$ miles, and the cost at sums varying between 550,000,000 and a milliard and a-half of francs. Maritime canals from the Baltic to the North Sea on the one hand, and to the White Sea on the other, are among suggested possibilities; as are also similar channels from the Black Sea to the Caspian, and thence to the Sea of Aral, in order to re-open with modern facilities the ancient route of Roman commerce to the East.

The classical memories of Corinth no longer avail to save it from desecration, and modern speculation, bolder than the genius

of Imperial Rome, proposes to uproot the hallowed soil which the golden spade of Nero clove in vain. In the face of such portents as the wounded earth spouting blood and shrieking beneath the pickaxe, even the most audacious of the Cæsars dared not prosecute the enterprise of the Canal of Corinth, for which General Türr has now obtained a concession and formed a company.

The Malay Peninsula, a long tongue of land projecting for 745 miles into the Indian Ocean, blocks the direct route between the Bay of Bengal and the Gulf of Siam. Though in high relief, with mountains 6,600 feet high, it is nowhere more than 124 miles across, while it diminishes both in breadth and height at the Isthmus of Kra, the low and narrow causeway linking it with the continent. Facilities are offered for the severance of this barrier by the large inlet of Pakcham, intersecting the peninsula in a transverse direction, and navigable for the largest ships for over 15 miles inland, while affording an available channel for a further distance of 21 miles. A cutting of less than 7 miles, through marshy ground, with a maximum elevation of 97 feet, would connect the head of the inlet with the upper waters of streams running to the east. Of the entire channel, 68 miles long, some 24 miles would be of artificial creation, with a cube of displacement of 73,000,000 to 74,000,000 cubic mètres, and an estimated cost of from 80,000,000 to 100,000,000 francs. The fact that the proposed channel lies partly through British territory is an obstacle to the execution of the plan, as its tendency would be to divert the trade of Singapore to the French settlements of Saigon and Bangkok. A project, whose realization would place these ports on the direct highway to the farther East, offers, on the other hand, obvious inducements to French enterprise.

Thus it would seem that we are but at the beginning of an era of active interference with Nature, in which the crust of the earth will be manipulated by man in accordance with his convenience or necessity. The magnitude of the changes already in progress is illustrated by the fact that the completion of the cyclopean ditch at Panama, in conjunction with the severance of the Arabian Isthmus, will place the navigable cincture of the globe altogether within the northern hemisphere, so that a ship will be able to complete the circuit of the earth without crossing the Line. It would seem, indeed, that whatever changes the future may bring forth, no revolution so great will remain to be effected, and that M. de Lesseps, should he succeed in carrying out his present undertaking, will have achieved the largest possible results in the detachment of continents and junction of seas.

E. M. CLERKE.

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ART. II.—STUDIES IN ORIENTAL PATROLOGY :
ST. EPHREM.

1. *S. Ephraem Syri Opuscula, e Graeco Latine Translata, ab AMBROSIO, Camaldulensium praefecto.* Florentiae, an. 1481. Republished, Brixiae, 1490 ; Paris, 1505 ; Strasburg, 1509 and 1585 ; Cologne, 1547.
2. Twenty-one other Treatises, translated from Greek into Latin, by ZINUS, Canon of Verona, Venice. 1561. Republished, Venice, 1574.
3. *Omnia Opera S. Ephraemi Syri, quotquot Graece inveniri potuerunt, Latine reddita, per GERARDUM VOSSIIUM.* Romae, 1589-98. 3 vols. fol. New editions, enlarged, Cologne, 1603 and 1619 ; Antwerp, 1619.
4. Greek Text of 156 of these Works, without Latin Version, from eighteen MSS. of Oxford. By EDWARD THWAITES. Oxon. 1719. Fol.
5. *S.P.N. Ephraem Syri Opera Omnia quae exstant Graece, Syriace, et Latine, in sex tomos distributa : opera et studio J. S. ASSEMANI, P. BENEDICTI, et STEPH. EV. ASSEMANI.* Romae, 1732-1746. 6 vols. fol.
6. *S. Ephraemi Syri, Rabulae, Balaei, aliorumque Opera selecta.* Ed. J. J. OVERBEEK. Oxon. 1865. 8vo. (Syriac text only.)
7. *S. Ephraemi Syri Carmina Nisibena.* Ed. G. BICKELL. Lipsiae, 1866. 8vo. (Syriac text and Latin translation).
8. *S. Ephraemi Syri Sermones duo, Syriace.* Ed. P. ZINGERLE. Brixen, 1868.
9. Another Discourse and Fragments, in *Monumenta Syriaca ex Roman. Codd.*, ed. ZINGERLE. Oeniponti, 1869. (Syriac text only.)
10. *S. Ephraem Syri Hymni et Sermones.* Ed. T. J. LAMY. Malines: Dessain. 1882. Large 8vo. (Syriac text and Latin translation opposite, with Prolegomena and Notes. This volume contains the Sermons on Holy Week, on Our Lord, the Adulterous Woman, and Anger ; Hymns on the Epiphany, Holy Thursday, Good Friday, and Holy Saturday. All these texts were inedited. The second volume is in the press.)

FR. ZINGERLE has translated into German a selection from the works of St. Ephrem, Innsbruck, 1833-1846, 6 vols. 8vo., and J. B. MORRIS has done the same in English. Oxford, 1847. 1 vol. 8vo. H. BURGESS

has translated the "Repentance of the Ninivites," London, 1853, and a selection of Hymns and Homilies, London, 1853. AUCHER, a Mechitarist of Venice, has published in Latin, from an Armenian version, "St. Ephrem's Commentaries on the Epistles of St. Paul." Venice, 1836, 4 vols. 8vo. MOESINGER has also published in Latin, from an Armenian version, "The Commentaries on the Concordance of the Gospels," Venice, 1878, 8vo.

The reader may consult also on St. Ephrem:—*Acta Sanctorum*, Feb. 1st; J. S. ASSEMANI, *Bibliotheca Orientalis*, t. i.; DOM CELLIER, *Histoire des Auteurs Ecclésiastiques*. Ed. Vives, t. vi. pp. 1-74, and 438-521; ALSLEBEN, *Das Leben des H. Ephrem*, Berlin, 1853; Lengerke, *Commentatis Critica de S. Ephraem Syro*, Hallis Saxon, 1828; and *De Ephraemi Arte Hermeneutica*, Regiomont. Pruss., 1831; FERRY, S. Ephrem, poète, Paris, 1877.

I. LITERARY REVIEW AND PORTRAIT OF ST. EPHREM.

INTERPRETER of the Sacred Scriptures, theologian, orator, and, above all, a poet, St. Ephrem has been accounted up to the present time the most illustrious Christian writer of the East. He may be compared to the greatest doctors of the Latin and Greek churches. Eloquent and ascetic like St. Basil, of whom he was the contemporary and friend, he combated Arianism in Edessa, whilst the Bishop of Cæsarea fought against it in Pontus, St. Gregory Nazianzus in Constantinople, and St. Athanasius in Alexandria contended for the same cause. St. Ephrem was one of the great lights of the Church. He was just setting in the East when St. Jerome and St. Augustine were commencing to shine in the West. As he lived before the heresies of Nestorius and Eutyches had divided the Church in Syria, all the Syrians, without distinction of creed—whether they be orthodox Christians, Maronites, Nestorians, or Jacobites—alike honour him as a saint, and venerate him as the great doctor and chief authority of their Churches. "Prophet of the Syrians," "Lion of Syria," "Harp of the Holy Spirit," "Pillar of the Church," such are the titles given to him in Oriental style, not only by Syrian authors, but even in their liturgical books.* A great number of the hymns, canticles, and prayers in verse, which are found in the Hadra, the Beth-Gaza, the Missal, Ritual, and other liturgical books, are ascribed to St. Ephrem.

It must not be supposed that the introduction of the hymns of the deacon of Edessa into the liturgical books is of recent date. It dates certainly from an early period, and most probably from the fourth century; for the Acts of the life of St. Ephrem

* Cf. Gabriel Cardatri, "De Arte Poetica Syror." Romae, 1875, p. 9; Ebed-Jesu Khayyat, "Syri Orientales," Romae, 1870, pp. 127, 128; J. S. Assemani, "Bibl. Or." i. p. 55.

inform us that he himself directed the choirs of virgins who chanted his hymns in the Church of Edessa on Sundays and festival days; and in the ancient Rituals, bearing the names of the Apostle St. James and of James of Sarug, may be seen the hymns of the sublime Syrian poet. In the ancient Syrian choir-books of the fifth and sixth centuries, preserved in the British Museum, are to be found the unpublished hymns of St. Ephrem, contained in the first volume of "*Hymni et Sermones St. Ephraemi*." We have, besides the above testimony, the undeniable proof, which is not taken from the Eastern Church, and which shows the extraordinary reputation of the deacon of Edessa. Less than twenty years after the death of St. Ephrem, St. Jerome wrote in 392, in his book, "*De Viris Illustribus*":*—"Ephrem, deacon of the Church of Edessa, has written in Syriac many *opuscula*, and has acquired such celebrity that his writings are read publicly after the Holy Scriptures in some churches. I have read his treatise on the Holy Spirit, translated from Syriac into Greek, and I can recognize even in the translation the power of this sublime genius, who died in the reign of Valens."

Sozomen tells us that even during the life of St. Ephrem they began to translate his writings into Greek. He says:—"He was so completely master of the Syriac language that not only did he grasp the most difficult problems in philosophy, but he surpassed many Greek writers in the eloquence of his brilliant language and the clearness and wisdom of his ideas;" "for," adds Sozomen, "if any one should translate the Greek writings into Syriac or any other language, the primitive grace and sweetness of the original Greek would be lost; but it is not so with the writings of St. Ephrem. They began to be translated into Greek during his life, and are still being translated at the present time, yet they have lost scarcely any of their original beauty."†

Since some of the works of St. Ephrem were already translated during his life, it is not surprising to find his contemporary, St. Gregory of Nyssa, preaching a panegyric to the people of Nyssa on the saint not many years after his death.‡ The bishop of Nyssa praises the virtues of the Syrian monk, as well as the purity of his doctrine, both of which have rendered him celebrated throughout the world. He mentions his writings against the Anomæans, his Commentaries on the entire Scriptures, his

* "*De Vir. Illustr.*," p. 115.

† Sozomen, "*Hist. Eccl.*" iii. p. 16. Nicephorus Callixtus repeats the same thing, "*Hist. Eccl.*" ix. p. 16.

‡ Cf. "*S. Gregorii Nysseni Opera*." Migne, "*Patrol. Gr.*" xlv. p. 319, and following.

discourses upon penance, the Christian virtues, the last judgment, and his Testament. This proves that St. Gregory had already been able to read in Greek at least some of the writings of the pious ascetic of Syria.

His writings were soon translated into all the Eastern languages—Coptic, Ethiopian, Arabic, Armenian, and, later on, into Slavonic. A collection of his ascetical homilies, translated into Slavonic, were read during Lent in all the Russian churches up to the time of Peter the Great.*

Up to the present day there has been no publication of the Arabic, Coptic, or Ethiopic translations. J. S. Assemani makes little account of the Arabic versions. He says: "In almost all recent Arabic versions it is remarked that, in Syria and Egypt, those who translate from Greek or Syriac into Arabic any of the writings of the Fathers, take little pains to render the exact words, or even the thoughts of the writers, but they choose certain ideas which please them; they develop these, and form them into almost a new work."† The Armenian version goes back as far as the fifth century. It was published by the Mechitarists of Venice in 1836, from a manuscript of the year 999 A.D. In it is found a beautiful exposition of the Four Gospels, and a Commentary on the Epistles of St. Paul, which are omitted in the Syriac and Greek editions. The Commentary on the Gospels has been rendered into Latin by Moesinger; but the Commentary on the Epistles has not yet been translated. The Greek Church has inserted into her Offices several of the prayers of St. Ephrem. Photius read in the Library of Constantinople forty-nine ascetical discourses, which he enumerates. "This is only a part," says this author, "of that which is translated into Greek, and the Syrians affirm that St. Ephrem wrote more than a thousand homilies."‡

Some of these were translated from Greek into Latin. Gennadius, of Marseilles, had read the poem on the Ruin of Nicomedia.§ Honorius, of Autun, cites several homilies, and the book upon the Holy Ghost.|| Vincent, of Beauvais, had in his possession seven treatises upon "Penance," "The Struggles of the Age," "Compunction," "Beatitude," "The Resurrection," and "The Judgment."¶ Trithemius adds several other treatises to this list.** The names of the first Latin translators are not known. The most ancient known to us is a Camaldulensian

* Cf. Tondini, "Règlement Ecclés. de Pierre-le-Grand." Paris, 1874, p. 52.

† S. Ephraemi, "Opp. Graeco-Lat." ii. praef. p. 4.

‡ "Photii. Biblioth. Cod." p. 119.

|| *Ibid.* p. 166.

** "De Script. Eccl." p. 78.

§ "De Script. Eccl." p. 66.

¶ "Specul. Histor." xiv. p. 87.

monk, named Ambrose, who became General of his Order in 1431, and who was well versed in the Greek and Latin languages. This religious, before he was made Superior of the Order, had translated nineteen ascetical treatises of St. Ephrem from Greek into Latin.* As the art of printing was not then invented, these treatises were not published at once; nevertheless, as early as in 1475, the first edition appeared: it only comprised five homilies. Soon after, in 1481, a second edition appeared at Florence, containing the nineteen treatises.

The treatises translated by F. Ambrose were received with such satisfaction that a more complete collection of the works of St. Ephrem was greatly desired. The few treatises translated from Greek into Latin by Zinus, a canon of Verona, increased this desire. The collection, so long wished for, was undertaken at Rome by the Belgian, Gerard Vossius.

At the urgent desire of Gregory XIII. and of Sixtus V., Vossius began the work. He searched the libraries of Rome and all Italy to procure all that they possessed of the writings of St. Ephrem. Besides the Greek manuscripts of the Vatican, he had the use of two manuscripts from Venice, two from the celebrated monastery of Crypta-Ferrata, one from the Isle of Cyprus, and one from Constantinople.

He compared all these different texts, noted their variants, rejected what appeared to him apocryphal, translated the Greek text into Latin with exactitude and elegance, added notes, and published his translation without the Greek text in three folio volumes at Rome in the years 1589-98. This work of Vossius increased the reputation of the Syrian doctor. It was admired by Protestants as well as Catholics. Several editions appeared in a few years. The principal treatises were rendered into the modern languages, and were used as books of devotion. As the edition of Vossius contained only the Latin translation, an Englishman, named Edward Thwaites, published the Greek text from the manuscripts at Oxford. This edition appeared in 1709, in Greek only.

Up to this period the original text had not been noticed. Syriac manuscripts were rare in the European libraries, and men versed in this language were rarer still. The manner in which the Syriac text of St. Ephrem's writings was found is as follows, and the history of it is interesting:—The institution of the Propaganda had brought to Rome Christians from the East, and particularly several learned Maronites, who had with them some manuscripts. Clement XI., having learnt from Gabriel, a

* See J. S. Assemani, "S. Ephraemi Opp. Graeco-Lat." ii. praef p. xxi.

Maronite monk, that in a monastery in the desert of Nitria, in Egypt, there was a valuable library, rich in manuscripts in the Syriac, Coptic, and Arabic languages, and that these could be purchased, despatched Elias Assemani with money and the necessary recommendations. He arrived at Cairo towards the end of the summer of 1707, and was well received by the Patriarch of the Copts, who furnished him with letters to the monks of Nitria, and also gave him a monk and a Christian Copt of renown to accompany him and act as guide through the desert, which was infested by brigands. Elias received a warm reception at the Monastery of Our Lady of the Syrians. However, he could only obtain forty manuscripts, at a considerable price, all in the Syriac tongue except one. He hastened back with his books, and arriving at the Nile, embarked with the monk who accompanied him, and set sail for Cairo. Suddenly a squall arose, such as often occurs at that time of the year, striking the frail bark, which was immediately overturned and engulfed. Elias managed to seize hold of another boat which was near, and which had escaped destruction, but his companion perished in the waves, and his manuscripts were seen floating on the waters. When calm returned the sailors fished up the precious volumes, and Elias arrived at last at Cairo, happy in having saved his books, and still more so in having escaped from death. After some needful rest he looked over his books, washed off the slime which covered them, dried them, and put them in order, and then set out for Rome, where he arrived safely. About Christmas, 1707, the "Codices Nitrienses" were added to the Vatican Library.

Another journey was undertaken by J. S. Assemani in 1715, who procured several more volumes. The collection of the manuscripts from Nitria, although not very large, yet contained many treasures. Four very old manuscripts contained the Syriac text of a great number of the writings of St. Ephrem.

In the "Codex Nitriensis, 7," of the year 522, were found 52 hymns about the Church, 51 upon virginity, 59 against heretics, 15 upon Paradise. The "Codex Nitriensis, 8," of the year 552 contained 11 hymns on Paradise and 15 on the Feast of the Nativity. The "Codex Nitriensis, 9," written by the same transcriber as the preceding, adds to the collection 87 hymns upon faith, or against the "Scrutinizers." The "Codex Nitriensis, 16," written in the year 823, contained 38 elegies upon the dead. Another "Codex" gave 11 hymns on penance. Some manuscripts, bought at Aleppo or at Diarbekir by J. S. Assemani, contained, besides several treatises of St. Ephrem, the commentaries of the holy doctor, taken from the "Catena" of the monk Severus, written in the year 861.

The greater number of the works of the holy doctor were unknown in the West. Clement XI. had resolved to bring out a new edition of his works, but death prevented him from carrying out his intention. Cardinal Quirini, Prefect of the Vatican Library, chose some learned Maronites, then in Rome, in order to fulfil the designs of the Sovereign Pontiff. Joseph Simon Assemani, the learned author of the "*Bibliotheca Orientalis*," was appointed to undertake the Greek translation; Benedictus, a Jesuit (in Arabic, Mubārak*), the Syriacone. As he died before the work was finished, Stephen Evodius Assemani completed the edition. The learned Maronites above mentioned laboured thirteen years at this great work, which forms six folio volumes; three contain the Greek and Latin text, and three the Syriac and Latin text. The three volumes, Greek and Latin, contain the Greek text of St. Ephrem's works, published at Oxford, and revised from the manuscripts in the Vatican. J. S. Assemani added many pieces up to then unpublished. In the Latin translation he kept to the version of Gerrard Vossius, correcting or modifying it where it was defective. He himself translated the unpublished pieces, and wrote learned prefaces to the three volumes. The variants and "scholia" of Vossius are omitted, which we regret.

The Syriac text is accompanied by a Latin translation which aims more at elegance than exactitude, and in many respects resembles a paraphrase. There are no variants, but as the manuscripts were damaged by their immersion in the Nile, it was difficult at times to reproduce the exact text; a table of contents is also wanting. The first and second volume of the Syriac text contain commentaries on the Psalms, on a portion of the book of Isaiah, on some of the minor prophets, on the Gospels and Epistles. At the end of the second volume the editors have added 11 explanatory discourses, 13 hymns on the Nativity of Jesus Christ, and 57 against heresies. The third volume contains the Acts of the life of the Saint, 87 hymns against "the Scrutators," a discourse for Palm Sunday, funeral hymns to the number of 85, hymns upon free-will, 76 exhortations, 12 hymns on Paradise, the Garden of Eden, and eighteen discourses and hymns on different subjects. The hymns on Paradise and the Nativity are not complete. St. Ephrem composed homilies and hymns on the Epiphany, Lent, and Holy Week, which are mentioned by Syrian authors. All these writings are incomplete, as are also others which we shall mention; but in spite of the omissions, the Roman edition cannot be too much praised. At the time in which it was compiled it was as complete as it was possible to be; but it is no

* Latinized by Assemani into Ambarachius.

longer so. During the last century the libraries of Europe have been enriched with numerous Syriac manuscripts, which contain, among other treasures, the writings of St. Ephrem, some of which are published and others not yet printed. In the many changes that have taken place, the British Museum has been fortunate enough, by great tact, to become possessor, during the last forty years, of the rich library of the Syrian convent of Nitria, from which Assemani had with difficulty obtained a few volumes. This collection contains several very ancient manuscripts of St. Ephrem, some of which date from the sixth and seventh centuries.

Professor M. Bickell has published from these the collection which he calls "*Carmina Nisibena*."* Dr. Overbeek has taken from the same collection the hymns against Julian the Apostate, the discourses to Hypatius, and other unpublished pieces.†

I myself have obtained from these manuscripts the hymns on Christmas, the Epiphany, Lent, Holy Thursday, the Crucifixion and Resurrection, also those on the Blessed Virgin, Virginity, the Martyrs, Confessors, and the Martyrs of Sebaste, upon Julian Saba, Abraham Kidunaia, and other subjects. Several homilies and the "*scholia*," or commentaries, on the twenty-six last chapters of Isaias, on Jonas, Nahum, Sophonias, Habacue, and Aggaeus, which are omitted in the Roman edition. A portion of these texts is already published in the work "*S. Ephraemi Hymni et Sermones*," ‡ of which the second volume is being printed.

I have taken from the manuscripts of Paris the sermons on Holy Week, and the life of the holy doctor. I have also found in the manuscripts at Oxford some unpublished writings, which will complete the collection of unpublished works, with some hymns furnished me by M. l'Abbé Rihmani of Mossoul. On the other hand, Dr. Zingerle has published from the manuscripts of Rome some ascetical discourses of St. Ephrem.§

The monk Ambrose has placed at the head of the Latin translation the following portrait of St. Ephrem:—

I have lately met with a foreigner who is said to have come from Syria. He was aged, tall, but bent with years; his countenance was calm and full of majesty, and his whole exterior that of a saint. The tears which almost constantly flowed from his eyes did not take away from

* G. Bickell, "*Carmina Nisibena*." Lips.: Brockhaus. 1868.

† Overbeek, "*Ephraemi Syri Aliorumque Opera Selecta*." Oxonii. 1865. In Syriac without translation.

‡ T. J. Lamy, "*S. Ephraemi Syri Hymni et Sermones*." Mechliniae: Dessain. 1882. T. i. Syriac Text, Latin Translation, Notes and Prolegomena.

§ "*S. Ephraemi Syri Sermones duo, Syriace*." Brixen, 1868. "*Monumenta Syriaca*." Oniponti. 1869. In Syriac without translation.

the dignity and austere grace of his person. On the contrary, there was in his bearing a serenity, a politeness and even an elegance which inspired affection in all who beheld him. Struck with an exterior so full of grace and majesty, I burned with a desire to speak to him and to have some conversation with him, in the hope of listening to what I felt sure would prove to be useful and agreeable. I therefore approached the old man and respectfully saluted him. When we had seated ourselves I was not long in discovering that he was well versed in divine knowledge, that he was inflamed with the love of God, full of zeal, compunction, energy and solicitude, an enemy to idleness and tepidity and vice, which caused him to shed tears. Without losing anything of his kindness and sweetness, he knew how to repress vice with as much firmness and power as he exalted virtue. He was powerful in inspiring the love of God, contempt of the world, desire of eternal happiness, and fear of the punishments in the next life. O divine goodness! What joy, what consolation, what spiritual advantages I derived from the conversations with this illustrious stranger, during the days and nights that he passed with me. Nothing could be more attractive than his exterior, nothing more salutary than his doctrine, nothing more agreeable than intercourse with him. There was nothing small, low, or unbecoming in his speech; all his discourses had for object, God and divine things, penance, future judgment, eternal life, the joy of the just, the sufferings of the lost, the acquisition of virtue, and the extirpation of vice.

This portrait is very correct, and corresponds with the ascetical works of the saint, which alone were known to Ambrose; but it only portrays one side of the great Syrian doctor. The writings translated and published first by Gerard Vossius, then those translated by the learned Maronites of Rome, who gave us for the first time a part of the original text, the hymns and discourses discovered by Bickell, Overbeek, and Zingerle, those which I have already published, and those now in the press, have wonderfully embellished the portrait and varied the aspect of the picture. St. Ephrem appears to us not only as an ascetic, whose eloquence at one time touches the souls of men, at another inflames them with the love of God and of virtue, or makes them tremble by his menaces of eternal chastisements,—he is an interpreter of the Scriptures who may be compared to the greatest commentators of ancient times; he is a profound theologian, who has combated all the heresies of his time, and particularly those of Bardesanes, of Marcion, of Manes, and the Anomaeans; above all, he is a sublime and prolific poet. The Syrians attribute to him, says Assemani, twelve thousand pieces in verse, and the Copts a greater number still. His well-balanced homilies, his hymns, bursting forth under an Eastern sun, are rich in images, at one time imposing, at another delicate, joyful, or sad, according to the subject; almost always brilliant with light, and breathing a

sweet and tender piety. The poet borrows his images and symbols from the sacred books, in order to explain the Christian festivals and mysteries. He trembles with joy at the birth of the Saviour, and adores the ineffable union of the two natures; he follows the Magi by the light of the star, and at the Epiphany bears to the Saviour a tribute of hymns, as numerous as varied, upon the Baptism of Jesus, on St. John Baptist, upon the effects of the Sacrament of Regeneration. If he celebrates the miracles of Christ, if he chants the Hosanna at the entrance of Jesus into Jerusalem, if, in the remembrance of the Last Supper, he extols the true Lamb above that which was figurative, if he is enraptured at the wonders of the Eucharist, always to the richest poetry does he unite the most profound doctrine. When he preaches with Jonas penance, and adopts the tone of Jeremias in weeping over the sufferings and death of the Saviour, his lamentations equal those of the prophet. He is not, however, desolate as those without hope; the mercy of God manifests itself to him on the Cross, he takes refuge in the arms of the crucified Saviour, and deploras his sins in order to obtain pardon for them. While the sacred body, taken down from the Cross, remains lifeless in the sepulchre, he follows the Redeemer into that abode of darkness which the Syrians, like the Hebrews, call "Sheol," and which the Greek Fathers name "Hades," but which we call by the name of "Limbo." He disputes with the devil over his prey and with death over its victims. Bickell was the first to publish these poetical dialogues between our Saviour, the devil, and death, and between the two latter. On the day of the resurrection Ephrem is ravished with joy at the thought of the future resurrection, and the happiness of heaven, of which he beholds an image in the earthly paradise.

The manuscripts of the British Museum have completed what was wanting in the Roman edition of the hymns of the holy doctor upon Eden. The hymns for the Ascension and Pentecost are still wanting; but we have found several of his canticles on the Blessed Virgin, in which he extols her sanctity, her perpetual virginity, and her divine maternity with most touching piety.

His hymns on the patriarch Joseph, on Julian Saba, upon Abraham Kidunaia, on the Martyrs and Confessors, on Nisibis and its bishops, are all of the richest and most tender poetry. He sings the Church and her mysteries, he describes the splendour of faith, which he compares in a series of hymns to a precious stone. He becomes vehement in his protests against Bardesanes, Manes, Marcion, Arius and other heretics, against whom he pours forth a torrent of refutation in two hundred and forty-four hymns, contained in the Roman edition.

We must not omit to mention the odes against Julian the Apostate, recently published. Ephrem honours the efficacious power of grace and the benefits of liberty, although at the same time he acknowledges the perils of it, while he defends it against the attacks made against it by fatalists. What can be more touching than his elegies on the dead, and his exhortations to penance! In fine, with his brethren, the monks of Edessa, he loves the retreat of the cloister, the silence, mortification, humility, sweetness, and virtues of the religious state. He preaches the fear of the judgments of God, the avoidance of all vice, and the charms of virtue. St. Ephrem has nothing profane in his poetry; his hymns, in all their various forms, are consecrated to religious subjects, and are all embellished with facts allusions, and symbols, taken from the sacred Scriptures. It is this feature which renders them so imposing and touching, and which gives to the writings of the saint their most striking character.

II. LIFE OF ST. EPHREM.

Until the last century the only accounts given to us of the life of St. Ephrem were to be found in the panegyric of St. Gregory of Nyssa, some few facts related by St. Jerome, Palladius, Sozomen, and Theodoret, and, later on, the "Life" of the saint written six centuries after his death by Metaphrastus, and also by an anonymous Greek author. But all these sources were very incomplete; they were wanting in dates, and merely related a few of the chief events in his life. The learned Bollandists had no other sources of information but these when they drew up the sketch inserted in the "*Acta Sanctorum*" for the 1st of February. It was only in the last century that J. S. Assemani, having discovered the Syriac Acts of the Saint, published an abridgement of them, with learned notes, in the first volume of his "*Bibliotheca Orientalis*." These Acts were afterwards inserted in full, but without notes, in the third volume of the Syriac and Latin works of St. Ephrem. But these acts contain serious chronological mistakes, and displace some of the important events in which St. Ephrem took part. Since then, those who have written the life of St. Ephrem in the "*Biographie Universelle*," of Michaux, and also in the "*Encyclopedia*" of Ersch and Gruber, as well as Alsleben in his *Life of the Saint*,* have perceived all these difficulties without being able to remove them. We may say that the life of St. Ephrem has not yet been written. The Acts contained in a Syrian manuscript

* Alsleben, "*Das Leben d. h. Ephrem des Syrsers, als Einleitung zu einer Deutsch. und Syrisch. Ausgabe der Werke Ephrems*." Berlin, 1853.

in the National Library of Paris, which the learned Abbé Martin, Professor at the Catholic Institute of Paris, has been so good as to copy for me, and which I have placed at the head of the second volume of the unpublished works of St. Ephrem, will enable me, with the aid of other recently published documents, to overcome the chief difficulties. This volume is in the press. I now give to the DUBLIN REVIEW the *résumé* of this hitherto unpublished work.

St. Ephrem was born in 306, at Nisibis, a town in Mesopotamia, situated on the borders of the Eastern Empire of Persia. His mother was a native of Amida, now called Diarbekir, and his father was a priest of an idol named Abnilon, or Abizal. The Acts taken from the manuscript of the Vatican and those taken from the manuscript of Paris, make the birth of St. Ephrem about the beginning of the reign of Constantine (306-337), without mentioning the exact year. But it must have been in the year 306, the first of the reign of Constantine, for St. Ephrem accompanied St. James of Nisibis to the Council of Nicæa in 325. He had already received baptism, since, according to the Acts of Paris, he was baptized at the age of eighteen, not at twenty-eight, which is an error in the Acts of the Vatican. Therefore he was in his nineteenth year when he went to the Council of Nicæa in 325, and consequently he was born in 306, the first year of Constantine. Like many other saints, St. Ephrem, in early infancy, was favoured with a celestial vision, which foretold his future destiny. The fact is related in the Acts, and by St. Gregory of Nyssa, and also by Metaphrastus, and the saint himself confirms it in the testament which he wrote a month before his death. He writes:—

When I was yet very young, while reposing on my mother's breast, I saw, as in a dream, that which afterwards became a reality. A vine suddenly sprang up from my tongue, it grew, and rose even to the heavens, it yielded fruit without measure, and leaves without number. It increased, and spread itself out on all sides, and the whole world hastened to gather the fruits, which were never exhausted. The more the grapes were gathered, the greater number sprang forth. These grapes were my discourses, and the leaves were my hymns. But the Supreme Giver of all these gifts was God, who willed that I should participate in His treasures. Glory be to His bounty !

Divine Providence, who willed that this child of predilection should become one of the pillars of His Church, withdrew him from the worship of those idols to which his father offered sacrifices. One day the latter found his son conversing with some Christians; he chastised him severely, saying, "I must offer sacrifices to my gods that they may be propitious to thee," and entering the temple he began to offer the sacrifices ; but the devil

interrupted him immediately and said, "I know well thy zeal for this temple, but thy prayers are not acceptable; if thou wishest to please me, chase from thy house thy son, that he may be far from me, for I know that one day he will persecute the gods." Immediately the priest left the temple, and going to his son, said, "Depart, go whither thou wilt, but return not again to thy home, for thou art the enemy of my gods." The boy, who was then about ten years of age, departed, taking nothing with him, and knowing not whither he should go. Providence conducted him to St. James, Bishop of Nisibis,* a most saintly man, and renowned for his revelations as for his miracles. The holy bishop received Ephrem with great kindness, and placed him in the rank of catechumens, then called "Auditors."† The child was trained to prayer and fasting, and each day he came with the "Auditors" to hear the Holy Scriptures explained by the bishop. At this epoch baptism was often deferred for many years, and the catechetical instructions continued for a long time. This was a test necessary for the pagans of those times. Ephrem received baptism at the age of eighteen, in 324, not at Nisibis, but at Beth-Garbaia, whence he soon returned to Nisibis, in order to accompany the bishop the following year to the Council of Nicæa, just as St. Athanasius accompanied the Bishop of Alexandria.

These details are given us in the Acts of Paris, those of the Vatican make it appear as though the baptism had taken place at the age of twenty-eight, but this is a mistake in the figures.‡ St. James of Nisibis would not have taken with him to the Council of Nicæa a simple catechumen.

The journey of Ephrem to Nicæa is confirmed by Gregory Barhebraeus, an accurate historian, who drew up his ecclesiastical history from the Syriac documents which were found in the Jacobite libraries of the thirteenth century.§ This same author writes that Ephrem began even then to publish some writings.

Ephrem returned to Nisibis with his bishop, and remained with him, occupied in reading the sacred books, and practising obedience and all Christian virtues. After the death of Constantine, in 337, Sapor, King of Persia, emboldened by the youth of the sons of Constantine, laid siege to Nisibis with a formidable army and an immense number of horses and elephants. The siege had continued seventy days when Sapor thought of a stratagem which appeared likely to prove successful in reducing

* He was bishop of this town from the year 309 to 338.

† This was the first degree of the catechumens.

‡ The Melchite Syrian menologies also place the baptism of St. Ephrem in his eighteenth year.

§ Cf. Barhebraei, "Chronicon. Eccl." Ed. Abbeloos and Lamy, i. p. 70.

the town. Nisibis was traversed by a stream which the Greeks named Mygdonius. This stream, flowing from the mountains, divided the town into two portions. Sapor stopped the river by strong dikes above the town, then allowing the waters to collect, he burst the dikes, and the waters were precipitated with such force that they broke down the walls which surrounded the town. It would then have been easy to take possession, but St. James and St. Ephrem had encouraged the inhabitants and caused them to erect an inside wall, surmounted by a fortified tower whence the besieged could defend themselves against their assailants.

All the while the bishop and his disciple were praying with the people in the holy temple. Ephrem obtained the consent of the bishop to mount the ramparts. When he beheld the innumerable troops of besiegers, he raised his eyes to heaven and prayed fervently. Scarcely had he finished his prayer than a cloud of gnats covered the enemy's camp. These tiny insects entered the ears and nostrils of the horses, stung through the bare and hairless skins of the elephants, and exasperated these animals to such an extent that they broke loose, dashed through the camp, spreading disorder on every side. Sapor was obliged to raise the siege, and confessed the power of the God of the Christians whom he had blasphemed. This fact is related, not only by the most reliable historians of the East, such as George, Bishop of Arabia, and Gregory Barhebraeus, but also by Greek historians, Theodoret, nearly contemporary with the saint, the author of "The Paschal Chronicle," Theophanes and Nicephorus Callixtus.*

Although repulsed this time Sapor did not lose courage, but returned again to besiege the town under the successors of St. James, Babu, Vologeses and Abraham. The siege of 350, which lasted 100 days, is mentioned in "The Paschal Chronicle," and taken from a letter of Vologeses, who describes it. Dr. Bickell, the learned professor of Innsbruck, confuses this siege with that of 338. St. Ephrem remained at Nisibis until Jovian, after the death of Julian the Apostate, in order to obtain peace, delivered up the town to the Persians.

He witnessed the different sieges which Nisibis sustained during the space of twenty-six years, and composed some lyrical songs of great beauty upon the Bishops of Nisibis and the sieges—at least four—which this town, now destroyed, suffered from the Persians. The holy doctor also wrote against the Emperor Julian and his apostasy. But when Jovian became emperor

* All these texts will be found collected in the second volume of the "Hymni et Sermones inediti S. Ephraemi," which I have in the press.

and gave up Nisibis to the Persians in 364, Ephrem quitted the town in which the Christians were no longer in safety, and retired to the mountains of Beth-Garbaia, where he had received baptism. He did not remain there, but went on to Amida, the native place of his mother. He was prevented by the persecutions from fixing his abode here, and at the end of a year he left Amida and took the road to Edessa, a celebrated town in Mesopotamia, which belonged to the Empire of the East. Ephrem was then about fifty-eight; he made Edessa his adopted home and died there. The Acts of his life relate that having arrived at the banks of the river Daisan, which surrounds the town, Ephrem saw some women washing their clothes in the stream; he stopped to look at them. One of them perceiving him, began to gaze at him in return with an air of boldness. The Saint indignant, said to her. "Is this the modesty which becomes a woman?" She replied: "It is for thee to cast thy eyes upon the ground, for thou hast been formed of the slime of the earth; but I have the right to look upon thee, since I have been formed from thy side." Struck by this piquant repartee, he withdrew, saying to himself: "If in this town the women have so much wit, what must the men be?" This sharp answer is also related by Metaphrastes, and by St. Gregory of Nyssa. In his panegyric of St. Ephrem, Sozomen* adds that St. Ephrem himself relates the fact in a book which he wrote on the subject. After entering the town, not knowing how to obtain a living, he engaged himself as servant in a bathing establishment. Here, whilst occupied with work, he used to reason with the Pagans, then very numerous in Edessa, and laboured, as much as his time permitted, in converting them. One day he met a monk, who said to him, "Whence art thou, my friend?" Ephrem related the history of his life. The monk answered, "What! thou art a Christian, and yet livest with Pagans? Wilt thou remain in the world?" "No, my lord," replied Ephrem. "Then," said the monk, "this is my advice; go, find a solitary near here, remain with him, and he will have care of thy soul." Without hesitating, Ephrem joined the monk, left the town with him, and went to live with the anchorets on the mount which overlooks Edessa on the west.† There he exercised himself in fasting, prayer, and the study of the Scriptures.

One night the solitary was engaged outside his cell in praying

* "Hist. Ecel." iii. p. 16.

† The tomb of St. Ephrem on this mountain, in the convent of St. Sergius, is shown at the present day; v. Sachau, "*Zeitschrift der Deutschen Morgenl. Gesellschaft*," 1882, p. 142.

and reciting the Psalms, when towards midnight he saw an angel of God descend from heaven, holding in his hand a large volume written on both sides. The angel said to those who surrounded the monk, "To whom shall I give the book which I hold in my hand?" "To Eugenius, the solitary of the desert of Egypt," they replied. "I have not received commands to do so," said the angel; "who then is worthy of it?" "Julian the solitary," they again answered. "No," replied the angel, "one alone is worthy of it, and he is Ephrem of the Mount of Edessa." The monk took this vision for a dream, and thought no more of it. This account is confirmed not only by Metaphrastes, and by the anonymous Greek author, but also by St. Gregory of Nyssa. It is related in the "*Apophthegmata*" of the Fathers.

Some time after, the same monk, having entered one morning the cell in which Ephrem lived in solitude, found him seated and writing his commentary on the first book of the Pentateuch. He was astonished to find so much learning in a man who had not made much study in literature. When Ephrem had finished the first book and commenced the second, the monk remembered the vision he had had, and understood the meaning of it. He took the book, and carried it to the public school, to be examined by the doctors and priests who taught there. These, believing that it was the work of the monk, began to congratulate him upon it, but he cried out, "The work is not mine, but Ephrem's of Nisibis," and he related to them his vision. Immediately the people ran to the cell of Ephrem, but he hid himself from them, and took refuge in a cavern of the mountain.

There has come down to us a commentary by St. Ephrem on Genesis. This commentary, consisting of short "*scholia*," is one of the most important which antiquity has given us. It appears that the holy doctor had composed a more complete commentary, but it has not reached us. The learned Maronites, who gave to Rome in the last century the large edition of his works, took his "*scholia*" on nearly all the books of the Old Testament from the Syriac manuscripts brought from the desert of Nitria to the library of the Vatican. I have found in the Syriac manuscripts of the British Museum the "*scholia*" on the last twenty-six chapters of Isaiah, on the Lamentations of Jeremiah, and on the five minor prophets, which are left wanting in the Roman edition.* The commentaries on the Psalms, and the books of Solomon, are still to be found.

Ephrem did not remain long concealed. An angel appeared to him, and reproached him with wishing to hide under a bushel the light given to him, and obliged him to return to Edessa. The

* They are in the press.

saint obeyed. Having arrived at the gate of the town, he stopped, and raising his eyes full of tears to heaven he made this prayer:—"Lord God, who didst give to Thy Apostles power over the demons, and replenished them with the gifts of the Holy Spirit, give to me I beseech Thee strength to overcome the heresies which rise up against the truth." After this prayer, he entered the town by the gate which looks towards the east, and in the evening retired to one of the towers on the wall of enclosure in order to pass the night there. He slept little and prayed much.

In the morning at sunrise he entered the town. As soon as he was seen on the public square, the inhabitants, who had heard of his flight, began to ridicule him, saying, "This is that Ephrem who yesterday fled away that he might not be seen by any one." They led him to the magistrates and chief clergy, who at first took him for a poor monk, without learning, but soon recognized the heavenly gifts with which he was endowed. The arrival of the monk mentioned before, confirmed them in the high opinion they had formed of Ephrem. But the idolators and heretics could not endure his discourses, they seized him, and after covering him with blows, they left him half dead.

When he came to himself, he quitted the town, regained his cell, and employed his time in writing discourses against heretics. By his teaching and his miracles he made many conversions.

Without doubt it was at this time that he began to write his sublime odes upon Faith, God, His Providence, the Trinity, upon Liberty and Fate, against the Astrologers, Bardesanes, Marcion, Manes, and the Arians. His renown drew many disciples to him; he formed a school. We have reason to think that it was for these young monks that he composed those ascetic treatises which are translated into every language, and which exhale a most sweet odour of compunction and piety. It is not surprising that these treatises should have been read in the churches, for nothing can be more calculated to excite repentance, compunction, fear of the judgment of God, hatred of sin, and the love of virtue.

The name of St. Basil had become celebrated from Cæsarea even to Edessa, and from Cappadocia to the confines of the empire. Ephrem desired to see him. He set out with a companion, who acted as interpreter. All the saint's biographers, from the time of St. Gregory of Nyssa, agree in mentioning this journey of Ephrem to St. Basil, at Cæsarea, but the Syriac Acts describe him as taking a singularly circuitous route. According to these Acts, Ephrem, instead of going direct to Cæsarea, embarked on the sea and went to Egypt to visit the monks in

the desert, and to edify himself by their example. On the voyage a tempest arises which he calms by his prayers. Then a sea monster casts itself upon the vessel, but Ephrem drives it back with the sign of the cross, and at the same instant the monster becomes a dead body floating on the waters. Having arrived in Egypt, Ephrem lives eight years with the monks of the desert. He receives a miraculous gift of the Coptic language, writes discourses against the Arians, casts out the devil from a monk who was possessed, then departs from Egypt, and embarks with his *socius*, arriving at Cæsarea in Cappadocia about the Feast of the Epiphany. This journey to Egypt seems to be legendary; several reasons make it at least very doubtful. In the first place it is impossible that Ephrem should have passed eight years in Egypt. The chronology of his life does not allow of such a length of time, since the holy doctor did not arrive at Edessa before the year 365, and he died in 373. But it may be argued that the Acts have only made an error in the date. It is not improbable that St. Ephrem, like other Syrian monks, desired to see those of Egypt, who were then much renowned for sanctity. Without doubt it is possible that this may have been the case, nevertheless, since neither St. Jerome, nor St. Gregory of Nyssa, nor Palladius, who had visited the monks of the desert, nor Sozomen, nor any of the ancient writers, have mentioned this journey, I regard it as apocryphal, although the Syriac Acts at Paris and those of the Vatican contain the same account.

Ephrem arrived then, as we have said, on the eve of the Epiphany at Cæsarea. Before his departure on this journey, whilst he was fervently praying in his cell, he had beheld, in an ecstasy, a pillar of fire which rose up to heaven, and he had heard a heavenly voice exclaim: "Ephrem, Ephrem, like to this pillar which thou seest, so is St. Basil." Towards evening he entered the town and passed the night in the open air in a retired spot. The next morning he and his interpreter entered without being perceived into the church, and stood in a retired corner. There he saw Basil on a high throne, clothed with a bright cloak, and surrounded by all the clergy in white vestments. At this sight he said to his companion, "Brother, I fear we have fatigued ourselves in vain; this man seated on a high throne is not he whom I saw. If we, who have despised the goods of this world, and have borne the burden and heat of the day, yet withal are only useless servants, how can this man, surrounded by such grandeur and magnificence, be the saint whose fame has reached even unto us?" In the meantime Basil, standing on the ambo, was explaining to the people the object of the feast. Ephrem raised his eyes to examine the preacher, and he beheld

the Holy Spirit in the form of a dove fly towards St. Basil; the tongue of the holy doctor appeared like fire.

The people began to applaud, Ephrem applauded still more. He understood the holiness of the great bishop. Basil had remarked Ephrem, and impelled by an interior inspiration on returning to the sanctuary, he sent his archdeacon to find Ephrem. Immediately the archdeacon makes his way through the crowd, comes to St. Ephrem and salutes him, inviting him to come to the archbishop. The companion of Ephrem having translated the invitation, Ephrem replied:—"You deceive yourself, brother; we are strangers, the archbishop does not know us." At the sight of this monk, thin, poor, and covered with an old garment, the archdeacon thought he had made a mistake, and returned to St. Basil; but the bishop sent him back a second time, saying, "Go again to this monk and say to him, Lord Ephrem, the archbishop calls you to the altar." The archdeacon having executed these orders, Ephrem was astonished to hear himself called by his name. He replied, "After the Mass I will go to the sacristy to beg the blessing of the archbishop." Then turning to his companion, he said, "the great Basil is truly the pillar of fire; I have seen the Holy Spirit inspire his words."

At the end of the service, Ephrem and his companion went before St. Basil. Immediately the bishop rose from his seat, gave them the kiss of peace, and said, "Be thou welcome, father of the sons of the desert, who hast increased the number of the disciples of Christ, and defended His flock. But why hast thou undertaken a journey so fatiguing to come to me, a miserable sinner? May God recompense thee for thy trouble!" The bishop then gave the Communion to the two monks, and offered them hospitality. Basil and Ephrem conversed through the interpreter. The monk of Edessa begged St. Basil to obtain for him the gift of the Greek language. They prayed together, and, after praying a long time, the archbishop urged Ephrem to receive the priesthood; but the humble monk would only consent to receive the diaconate. "Why," asked the Bishop, "will you not receive the priesthood?" "Because I am a sinner," replied Ephrem. "Would to God," answered St. Basil, "that I were such a sinner! but let us prostrate ourselves." They did so. Then the great Pontiff imposed his hands upon him, and, after reciting the prayer for the diaconate, he raised him up. Immediately Ephrem cried out in Greek, "Lord save us! have pity on us! preserve us by Thy grace!"

Ephrem remained three days with St. Basil, and explained to him, among other things, the meaning of the Hebrew word, *Merahepheth*,* in Genesis i. 2: *Et Spiritus Dei ferebatur super*

aquas. St. Basil alludes to this when he says that he had learned from a Syrian that the Hebrew word rendered into *ferrebat*, signifies the movement of a hen brooding over her eggs to quicken them into life.† Thus St. Basil conferred the diaconate on Ephrem, and ordained his companion deacon and priest. St. Ephrem was never ordained priest. The Syriac Acts expressly say that he was ordained deacon, not priest. St. Jerome calls him deacon of Edessa; Palladius and Sozomen also give him the title of deacon. Some authors have thought that he was ordained priest by St. Basil, and they were led into this error by the narrative falsely attributed to St. Amphilochius, in which it is said that Basil conferred the diaconate and priesthood on the companion of Ephrem and on Ephrem himself. But the recent manuscripts which contain this phrase are faulty. The MS. of the Vallicelli Library, which is much more ancient, does not contain it, and styles Ephrem only deacon.‡

Excepting a few details, the journey of St. Ephrem to St. Basil is related alike by the Syriac Acts of Paris and Rome, and by the anonymous Greek author, who is believed to have been St. Amphilocus. It is mentioned by Sozomen, Metaphrastus, and above all by St. Gregory of Nyssa, who makes special mention of the celestial dove which inspired St. Basil. It is true that some difficulties have arisen respecting the ordination of St. Ephrem by St. Basil, but they have been easily explained. St. Ephrem was a monk. He did not belong, strictly speaking, to the clergy of Edessa; he had only lived in the diocese some years. According to the discipline of those times, it was not forbidden to St. Basil to ordain him as long as he did not attach him to his Church to the detriment of the Bishop of Edessa. It was thus that St. Jerome was ordained priest by the Archbishop of Antioch. The Bollandists have clearly explained this point.§ We need not dwell upon it.

In returning to Edessa, Ephrem stopped at Samosata. Scarcely had he entered the town than he met an heretical teacher, with his pupils. He saluted them, and one of them replied by a blow on his face, whilst the others began to laugh at the poor monk. Shortly afterwards these insolent youths sat down to eat their bread, when suddenly a viper crept from beneath a stone, and bit the one who had given the blow, who immediately fainted. They ran after St. Ephrem, who, yielding

* כְּרִיכָה

† "S. Basilii Hom. ii. in Hexaemer."

‡ Vide "S. Ephraemi Opp. Graeco-Lat." t. iii. praef.

§ Vide "Acta Sanctorum," Feb. 1. Vita S. Ephr. Comment. pp. 21-24.

to their entreaties, turned back, and taking the child by the hand, said, "May Christ, the Son of God, restore thee, my son!" In an instant the child rose up full of life. Struck with this miracle, the heretics of Samosata were converted. The Syriac Acts relate this fact. The Greek authors do not mention it; but, as Sozomen says, many details of St. Ephrem's life were unknown to the Greeks.

On returning to Edessa, Ephrem found the town corrupted by the heresies of Bardesanes, Marcion, Manes, and others. Bardesanes and his son, Harmonius, in order to further the spread of their errors, and cause them to penetrate the minds of the people more easily, had inserted them into the psalms and sacred songs. Bardesanes, in imitation of David, had composed 150 psalms filled with his errors, and Harmonius had written hymns and songs which easily seduced the people of Edessa, who were fond of music. St. Ephrem, to combat more effectually these seductive compositions, also wrote hymns and canticles. We have found a great number of them in the Syriac MSS. of ancient date in the British Museum. These liturgical chants are the most ancient which we possess, except a few hymns scattered among the writings of the Ante-Nicene fathers, and their poetry is of a high order, of great richness and sweetness. Blossoming under an Eastern sun, they appear resplendent with light, while the metaphors, taken from the books of the Old Testament, at one time bold and striking, at another sweet and touching, give to them that grand and sublime pathos which we find in Job and Isaias, with all those variations and shades which distinguish the Book of the Psalms. St. Ephrem's hymns fill the liturgical books in all the Syrian churches, and form the greatest ornament of their Offices. Ephrem's poems preceded the Greek melodies. He is the most ancient liturgical poet. We venture to say that none have surpassed him. As Sozomen truly says, "Ephrem's poems are admired even when translated." I have published the hymns on the Epiphany, the Last Supper, and the Crucifixion. My second volume, now in the press, will give the hymns on the Nativity, Lent, the Blessed Virgin, Martyrs and Confessors, also on St. Julian Saba, and Abraham Kidunaia, whose life he wrote. The hymns on faith and against heretics have been published in the collection of Syriac works, also the elegies on the dead, and the odes on the Garden of Eden. It is not surprising that the Syrians should have called their great poet "the harp of the Holy Spirit." Ephrem undertook to conduct the choirs of the virgins consecrated to God, who sang his hymns in the temple of God morning and evening, in order to embellish the Offices of Sundays and festival days. In this way he attracted the people and drew them from their errors.

The Acts relate that, like St. Peter, he miraculously cured

a paralytic at the door of the Church of St. Thomas. According to the same Acts, four years after the visit of Ephrem, St. Basil wished to raise the deacon of Edessa to the episcopacy, and for this end he sent two of his disciples, Theophilus and Thomas, to Edessa, but when they arrived, Ephrem, having been informed by revelation of their design, made pretence of madness, and the envoys returned as they came. Sozomen* confirms the fact without citing the names or the date. The Syriac Acts of Paris relate also that whilst Ephrem was at Edessa, the Huns came to besiege the town. Not being able to force the gates, they devastated all the country around, and in particular the numerous monasteries of men and women which were upon the mountain. The monks were taken prisoners, the virgins dispersed, and even violated. Ephrem wrote about the atrocities committed, but his account, if it exists, has not reached us. According to the same Acts of Paris, during the last years of Ephrem's life, probably a year and a half before his death, the emperor Valens, who was the protector and encourager of the Arians, dispersed the orthodox bishops on his march to Edessa. He halted with his army outside the town, and sent word to the inhabitants to appear before him in order to make known to him their sentiments. As they delayed to come, and would not leave the great church of St. Thomas, where they were assembled in prayer with their bishop, Barses, the emperor sent one of his officers with orders to put them to death. This officer was full of commiseration, and felt a great repugnance to execute so barbarous an order. He therefore prayed the inhabitants to obey the emperor in order to escape certain death. They paid no attention to what he said, but continued to pray. The chief again sent another summons. Whilst he was passing through one of the streets, a woman was seen running precipitately towards the church with her two children. He stopped her and asked the cause of her haste. The woman replied, "I lead my two sons to the church to be offered to Christ, the King of Kings, and to be immolated for Him."

The officer, astonished at such courage, related the fact to Valens, who was struck with wonder. The inhabitants then came out, Barses at their head, and approached the emperor, but he was overcome by their firmness, and sent them back pardoned, and withdrew full of confusion. It was thus that Edessa was saved by the firmness of her faith. Ephrem sings this song of triumph :—

Edessa left her houses open, when she went out with her pastor, hastening to meet death. She preferred to die rather than change her faith. Let us abandon to the Emperor the town, the walls, the

* "Hist. Eccl.," iii. p. 16.

public buildings, the houses; let us give up all, let us yield to him our goods and our gold, but our faith we will never change. O, Edessa! full of chastity, of wisdom and intelligence, clothed with prudence and judgment, adorned with the girdle of faith, armed with the helmet of unchangeable truth, and the breastplate of charity, the universal ornament. May Christ bless thy children! O, Edessa! glorious name, whose glory is enhanced by the Apostle, and whose wisdom is attested by thy bishop! O, city! mistress of other towns, thou art upon earth the shadow of the heavenly Jerusalem; how can I extol thee enough?

The Syriac Acts of the Vatican place this event in the reign of Julian the Apostate, and thus confuse the rest of the life of St. Ephrem, which it is impossible to unravel in consequence. The Syriac Acts which I publish restore the right order of events, and are confirmed by Sozomen,* who relates the above-mentioned event with a slight difference in the details, and places it in the year 372, about a year or year and a half before the death of the holy deacon of Edessa, which took place in the month of June, 373. The famine which desolated Edessa during the last year of the saint's life was no doubt caused by the ravages made by the army of Valens.

The Syriac Acts of Paris and of Rome relate here the history of a woman, a sinner whom St. Basil sent to Ephrem, and who was sent back by the monk of Edessa to the Archbishop of Cæsarea. She is said to have returned to this town just as they were carrying to the grave the coffin of St. Basil, and it is said that she threw upon the coffin a paper containing her confession, and that the sins therein enumerated, which she dared not avow, were miraculously effaced from the paper. The history of St. Basil mentions nothing of all this. Besides the death of St. Basil was posterior to that of St. Ephrem by several years. It is generally stated to have taken place on January 1, 379; but, even if we should place it in the preceding year, it would still be impossible to believe the history of this woman, as it is impossible also that St. Ephrem should have preached the funeral oration of the great doctor of the Church of Cappadocia. It must be that some interpolation has been introduced in this instance into the Acts.

After the departure of the army of Valens, famine broke out in Edessa, and quickly reduced the town to the utmost extremity. Ephrem quitted his cell and hastened to succour the people decimated by hunger and sickness.

He earnestly exhorted the rich to come to the assistance of the unfortunate sufferers. At his word they gave generously,

* "Hist. Eccl." vi. p. 18.

and Ephrem constituted himself their almoner. Finding himself unequal to such a task, he obtained the aid of a few chosen men, erected a temporary hospital for three hundred beds for the sick, and devoted himself day and night to their relief, until the following year brought an abundant harvest. Then he returned to his solitude. The account given in the Syriac Acts of this event is attested by Palladius, an author nearly contemporary with Ephrem, and by Sozomen and other biographers of the Saint.

On returning to his cell, Ephrem soon felt his end approaching. A month before his death he called his disciples around him; among them were Abraham, Abba, Maras, Zenobius, mentioned in his will, Isaac, Simeon, and others; he gave them his last advice, and made his will, which is still to be seen.

At the news of the illness of the holy anchoret, all Edessa was filled with sorrow, and persons of all classes in society hastened to his cell. He gave them his blessing, exhorted them to practise virtue, and besought them to bury him as a poor person, and in the cemetery for strangers, not in the church. Then he tranquilly gave up his soul to his Creator, on the 15th, 18th, or 19th of June.

An extraordinary concourse of people attended his funeral. The bishops, priests, deacons, and all the clergy of Edessa, the monks, and other inhabitants of the town, chanting psalms and funeral hymns, accompanied his coffin, which, according to his desire, was interred in the stranger's cemetery. But it did not remain there long. He soon received the honours due to a saint. His body, which exhaled a sweet odour when it was disinterred, was placed in the church with great pomp.

The Acts do not name the year of his death, and the different authors of his life have disagreed upon this point. Many of them place his death with that of St. Basil in the year 379 or 380. But the Syriac documents lately discovered allow us to rectify this important point, and to state with certainty the date of his death in the year 373. Gregory Barhebraeus, an historian of great exactness, who had at his service the manuscripts of the Maphrian, or Primate of the Eastern Jacobites, relates that St. Ephrem died in the year preceding the death of St. Athanasius, which was in 682 of the Greeks, or 371 A.D.* There is in these figures a small error, for St. Athanasius died in 373, the same year as St. Ephrem. Elias, of Nisibis, in his "*Chronography*," still unpublished, fixes the death of St. Ephrem in the year 684 of the Greeks (373 A.D.). Elias is very exact in the dates which he mentions, and in this case he cites as his

* Barhebraei, "*Chronicon Eccles.*" i. p. 187.

authority the "Chronography" of James of Edessa, a learned writer and bishop of the same town. The "Chronicle of Edessa," a very ancient document, drawn up from the archives of that church, and which is universally admitted to be most exact, also fixes the death of St. Ephrem in the year 684 of the Greeks and 373 A.D., and the same is done by the Patriarch of the Jacobites, Dionysius Telmahar, in his "Chronicle." A very old chronology, which is found in page 177 of the codex, add. man. 12, 155, of the British Museum, a codex which belongs to the eighth century, fixes the death of Abraham Kidunaia and of Julian Saba in the year of the Greeks 678 (367 A.D.), and that of Ephrem in the year of the Greeks 684 (373 A.D.). The "Book of the Caliphs," published by Land, assigns to the year of the Greeks 684 the death of St. Ephrem. The abridged Acts published by J. S. Assemani, "Biblioth Or." i. p. 25, also give the death of St. Ephrem in the year 373. Another MS. cited by the same author gives also the same year 373.

It seems to me that this concurrence of numerous and most reliable testimonies definitely determines the question of the date of St. Ephrem's death, more especially as the Syriac Acts do not indicate the exact year. If this is so, we must reject all that does not agree in the Acts of the Saint with this date. It is for this reason we have rejected some passages of these Acts as interpolated. From this it follows also that the panegyric of St. Basil, attributed to St. Ephrem in some Greek manuscripts, was not really his.

As we have said, the fame of the deacon of Edessa and his reputation for sanctity spread throughout the empire with great rapidity. The testimony of St. Gregory of Nyssa, of St. Jerome, of Palladius, and Sozomen, who wrote not many years after his death, all prove how much he was held in veneration, since his writings were read during the divine Office in many churches. These ascetical writings, translated into Greek and Latin, formed the pious reading of the monks during the Middle Ages.

T. J. LAMY.

ART. III.—CATHOLICS AND MODERN LITERATURE.

IT was allowed me, a little while ago, to deal in the pages of this REVIEW with an extremely delicate question, the attitude, namely, which Catholics should assume towards modern science.* But, even whilst engaged in speaking of science and the influence it has gained over men's minds, I found myself touching also upon "the other half of knowledge," or what Plato would call the counterpart, and Mr. Matthew Arnold has defined to be the antithesis of science—I mean literature. For it was essential to my argument that I should point out the relation between the triumph of popular Darwinism, here and in Germany, and that devotion to "culture" which has raised the writings of genius, in the eyes of a vast multitude, to a level with inspired Testaments, and with the prophecies of Ezechiel and Isaias. It is worth remarking that, had I sought for an illustration of either the scientific or the literary spirit which I am now to consider, I might have found it in the same individual—Goethe, and indeed allusions to him in both of these aspects occur on the same page of my article. For, to sum up the prevailing theory, science is the interpretation of Nature, and letters afford us a picture of life as beheld by genius. But have we any knowledge except of Nature and life? If we have not, these are the two hemispheres that make up the circle of things knowable. And where science has uttered its last word, literature must take up the strain. As, however, it is the province of literature to interpret, and partly to create, sentiment, and as sentiment is, according to many modern schools, the highest kind of experience, it follows that literature will have religion in its keeping. For religion, in the schools to which I am referring, is held to be a sentiment and nothing more. Hence Goethe's pregnant dictum, "*Wer Wissenschaft und Kunst besitzt, hat auch Religion.*" Goethe speaks of "art" rather than literature; but only because he is thinking of every form of knowledge that is not purely scientific, and among these forms literature is undoubtedly supreme. If, then, we question whether anything whatever can be known of a God transcending Nature, a spirit infinitely greater than the spirit of man; or if we feel convinced that there is nothing of the sort to know; we shall be driven to make a religion for ourselves by means of science and literature. For I do not imagine that many will in the long run follow the guidance of "theophobists" like Bahnsen, who would fain have done

* DUBLIN REVIEW, Oct. 1884. "The Battle of Theism."

with religion and the ideal altogether, or furious iconoclasts like M. Richepin, the author of various well-known, astounding, and insane poems not to be named here by me, to whom the very notion of science, of law, order, and progress is no less hateful than—I say it with reluctance—the notion of God Himself. In whatever degree revelation and the supernatural lose their hold upon educated men, they will turn to literature in the expectation of discovering there a substitute for what they no longer believe, a new Bible instead of the old, a Church with more promise, as they conceive, of becoming universal than the Catholic. What, then, is meant by “culture” but an attempt to introduce fresh gods, a novel worship, a morality, and I might even add in spite of disclaimers from many sides, a metaphysics that shall take the place of Christian systems? When Mr. Matthew Arnold contrasts literature and dogma to the disadvantage of the latter, he does not perceive that, in his hands, literature has itself been transformed to dogma. But he is, and he feels that he is, the apostle of a religion clothed in the garb of literature; and so he pleasantly described his travels in America as a “confirming of the churches.” No one is more sensible than Mr. Arnold of the religious and irreligious significance that belongs to all the great literary achievements of the age, and no one has done more to make it known to the world at large.

Let me insist upon this, upon the fact, as I consider it to be, that literature is exercising an influence exactly of the kind which is proper to religion; that it has a religious worth and unworth; and that there is such a thing as the “Church of Literature,” though by no means as yet organized and visible to every gaze. If it is a fact, there can be few of more consequence, especially to Catholics, as I shall proceed to show. But the notion that literature has a bearing on religion, or should be studied in that light, is so strange at first sight, so remote from the thoughts in which dogmatic Christians, and especially theologians, are brought up, as, I dare say, to seem in the eyes of both clergy and laity, far-fetched, if not grotesque and false. Theologians, indeed, will admit that every system of metaphysics must issue in a religious view, or is a religion expressed in abstract formulæ. This is not difficult to them, because their own science has formulæ, abstractions, and all the apparatus of metaphysics. But when I tell them that Wordsworth, Shelley, Browning, Tennyson, or again Victor Hugo, Balzac, George Sand, Emile Zola, or, to speak of German writers, Heine, Goethe, and Schiller, must be seriously studied as exponents of various new creeds and systems of religion, I shall doubtless seem to be uttering a paradox, and to mean something else by religion than our scholastics mean. But it is no paradox,

and I am using words in their strictest sense. One of the most fruitful studies in history would be that of tracing the unexpected forms in which ideas have clothed themselves, and the divorce so often existing between the substance and the shadow of things which play a great part on the human stage. There have been theologies from which religion was absent, and frivolous-looking romances that were penetrated with false religion, or even, in some degree, with true. Shelley's "Prometheus Unbound" is as surely a manifestation of the author's beliefs about God as the dogmatic treatises of Petavius. Is not "In Memoriam" a record of the poet's meditations upon time, death, eternity, everlasting punishment, the possibility of a final restoration, parallel in its method though not in its conclusions with the "Exercises" of a great saint? I have been told of a conversion to the Catholic Church, brought about by a deep study of Mr. Browning's Christian poetry, and are there not men—I have met them—who will assure you that George Eliot is the most effective preacher of morality England has seen these fifty years? But morality is of one texture with religion. Look again at Heine's poems, stories, and description of travel. They are stamped with the characteristics of a child of this world, if any writings ever were, yet it is impossible to read them without recognizing in their satire, their picturesqueness, their irony and gloom and laughter, their frequent lapse from the standard of Christian purity and unselfishness, a spirit which combines good and evil and preaches both, as only a being capable of the religious sentiment could. That is why in the well-known verses he calls himself a "knight of the Holy Ghost." Or turn to Victor Hugo, and see all the aspects of belief and unbelief exhibited, as in a series of *alti-relievi*, with the utmost grandeur, vividness of colouring, and eloquence of form. It would be idle to assert that Victor Hugo has poetically bodied forth any one creed, but only because he has felt in succession the power of each, from Catholic Theism to the horrible despairing Pessimism which is an under-current of "Les Travailleurs de la Mer" as of the darkest chapters in "Les Misérables." And how shall we criticize George Sand's "Lélia," if we can perceive in it nothing more than an improper three-volume novel? Improper it is, nay, to use Lord Acton's well-warranted epithet in speaking of too many of George Sand's writings, ignominious, but it abounds also in the most scathing rhetoric ever wielded as a weapon of war against the Roman Church. "Consuelo," a romance that has charmed thousands who do not detect in it, as has been lately suggested, the cunning of any "Bohemian artist" except the Bohemian of Paris whose name is on the title-page, contains an exposition, at once most moving and

most partisan, of the beliefs and practices of John Huss, Ziska, and the Taborites, which, for effectiveness of polemic, is equal to any theological diatribe ever issued. Again, there is "*Spiridion*," *ce roman peu récréatif*, as George Sand herself speaks of it, composed under the inspiration of Pierre Leroux, and intended to portray the commingling of Judaism with Catholic and Protestant Christianity in a true everlasting Gospel. But on the religious scope of this remarkable woman's utterances I need not dwell, since she has recorded in the "*History of her Life*," how M. Buloz, the editor of the *Revue des Deux Mondes* (where most of her stories appeared), wrote to her again and again, deprecating her excess of mysticism, that is to say, of what she meant for pious preaching. I might refer, also, were not my space limited, to the multitude of Balzac's studies of religion in his "*Comédie Humaine*," from "*Louis Lambert*" and "*Séraphitus*" at one end of the series, to "*Ursule Mirouet*," "*Le Médecin de Campagne*," and "*Le Curé de Village*," at the other. But I must hasten to a later period, and suggest how great and striking a proof of the connection between religion, or anti-religion, and literature is furnished by that most vile, debasing, inhuman, and obscene company of writers who reflect at this day the atheism of France in their so-called "*Positive*," or scientific and realistic, romances. For their method may be expressed in a word, as the application of an unbelieving and brutish philosophy to explain or arrange the incidents of human action. No man that was not an atheist, says M. Zola, could see the things that he has seen, or tell of them as M. Goncourt and others have told of them.* Such, too, is the inference to be drawn from the cultivated and fastidious, but utterly abominable writings of Gustave Flaubert, which, unlike as they may be to M. Zola's realism, have the same end in view, to depict a world from which God is absent, and in which moral laws have ceased to exist. The vehicle chosen may be prose or verse; it may be romance, history, art-criticism, political portraiture, what you will. But that is no reason why the purpose of it all shall be different from that of the grave folios of two centuries ago, which dealt seriously with things serious, and defended or attacked religion in solemn form. It is only the manner that has changed.

But the manner has changed, and an historical novel, such as "*John Inglesant*," may call for as earnest study at the hands of theologians who wish to exert their influence outside the cloister, as if it were wholly free from word-painting and innocent of dramatic conjunctures. I am aware that in England,

* Vide "*Le Roman Expérimental*," *passim*.

and perhaps not in England alone, the number of professedly religious works issued year by year exceeds that of any other kind. All I shall remark is that of these works the bulk have no chance of becoming known outside a narrow circle, and the volumes to which so many defections from Christianity may be traced are either scientific and quasi-scientific, or else of a literary nature. Not among average readers can we expect Ewald's "History of Israel," or the treatises of Professor Kuenen, to have a wide circulation; by such learned volumes the majority will be left unmoved. It is the light and easy handling of polemics, as in "Literature and Dogma," the impassioned advocacy of a moral system, as in "The Mill on the Floss," the satirical sketches of a "New Republic," the elaborate classicism of "Marius the Epicurean," and "Studies of the Renaissance," that win a hearing in this busy yet self-indulgent time. Who would venture to describe Mr. Arnold, or George Eliot, or Mr. Mallock, or Mr. Pater as theologians? Yet theologians they are, preachers and apostles to whom a loftier pulpit is granted than St. Paul had upon the Hill of Mars. Neither is it a drawback to their authority that gown and bands, surplice and stole and pastoral staff do not figure among the insignia by which they are distinguished. The contrary, perhaps; at least so far as a newer generation, which has learnt the philosophy of clothes from Carlyle, is concerned. "Ridentem dicere verum, quid vetat?" runs the Horatian saw. We may enlarge it so as to include not only laughter, but every kind of human expression among the media at our disposal, and not only truth but falsehood among the subjects of our treatment. It is the informal, the unsuspected, the unconscious upon which a magician will depend for his wise charming. And here what Cardinal Newman has urged, and a very different genius, Mr. Arnold, has in his own way illustrated, concerning the inadequacy of formal argument to convince even where it overpowers, and the persuasiveness of style, personality, feeling—in short, of the living as compared with the mathematical, would be to my purpose if I had leisure to quote it. For since it is the fascination of the individual to which we succumb rather than his arguments or unadorned theories, we ought not to be surprised at finding, in a literary age, the influence of literature, that most individual of human achievements, paramount. The question is not whether poetry, romance, and criticism do mould our thought, and therefore our religious character, for they certainly do. It is, I would say, this—whether, being already in possession of a creed which we know to have come from God, we Christians shall so deal with literature as to hinder it from harming our creed, whilst it supplies fresh matter for meditation and use.

An easy question if the poetry were of one spirit with Dante's "Paradiso," the romance like Chateaubriand's "Les Martyrs," or Wiseman's "Fabiola," or Cardinal Newman's "Callista," the criticism like—but, for some reason or other, I do not know where exactly to look for criticism from a Catholic pen at once accurate and of universal repute. That is partly the motive which stirred me to deal with my present theme. However, as I was beginning to remark, the difficulty is in not assimilating certain productions of literature with Christian habits of mind. He would be scrupulous, indeed, nay, to be called a Puritan, who should forbid men and women (I do not say the young) to read their Shakespeare—bating a play or a poem of course—or their Milton, Dryden, Pope, Addison, Cowper, Wordsworth, and Walter Scott. And it must be regarded as a distinction of the Victorian era, that we may reckon a host of story-tellers who have combined harmlessness with amusement, and, why should I not say it? innocence with wisdom. If we are ever to be a civilized people in reality as well as in name, it will come about through the diffusion of beautiful human thoughts, and thereby of right human feelings in the breasts of the multitude. This religion alone can directly and successfully accomplish; but, if it be not antagonistic to religion—another and a false religion, as I have said—literature will do much to second it. What power has been more abiding than that of the masterpieces of genius, conceived in accordance with the moral law? They are with us to this day, not only those where genius was the channel of divine inspiration and disclosed the counsels of the Most High, but Æschylus, and Homer, and Sophocles, and Pindar, and Plato, the Grecian prophets; and Cicero, and Virgil, and Horace, a less glorious constellation, though likely to endure as long. These, too, had a gift from God and employed it, on the whole, as they were meant. To excommunicate them would be an unwise austerity, which some have pressed upon the Church, but in vain. Raffaele painted Sybils no less than Madonnas, and these impersonations of divine gifts bestowed outside the visible sanctuary have found their place in Santa Maria della Pace, or have been lifted by Michel Angelo to the heaven of the Sistine. A sure sign that in the eyes of St. Peter's successor nothing is to be called unclean which God hath made holy. The classic literature, bathed in the baptismal font, has been thus chosen to adorn the very temple, and from an enemy, as it might have proved, is turned, in the confession of unbelievers, to a bulwark of Christianity.*

Not so is it with modern literature. We may read Homer

* See Mr. Bain's "Essays on Education."

fearlessly; and it would be no long task to prove that Shakespeare is the Homer and the Æschylus of English-speaking races, and must be allowed his great pre-eminence, and studied wherever the English language spreads. But I do not include Shakespeare, or indeed any writer before the eighteenth century, in what is termed *par excellence* modern literature. It will be convenient to look upon this as starting with Voltaire. To the movement which, if he did not inaugurate it, that first of *littérateurs* made a visible power in Europe, Mr. Arnold, I have no doubt, would apply his definition both of culture and of criticism. Certainly what has been said by him in this connection is worth quoting.

Modern times [he points out, in writing of Heinrich Heine] find themselves with an immense system of institutions, established facts, accredited dogmas, customs, rules, which have come to them from times not modern. In this system their life has to be carried forward; yet they have a sense that this system is not of their own creation, that it by no means corresponds exactly with the wants of their actual life, that for them it is customary, not rational. The awakening of this sense is the awakening of the modern spirit. The modern spirit is now awake almost everywhere; the sense of want of correspondence between the forms of modern Europe and its spirit, between the new wine of the eighteenth and nineteenth centuries and the old bottles of the eleventh and twelfth centuries or even of the sixteenth and seventeenth, almost every one now perceives. . . . To remove this want of correspondence is beginning to be the settled endeavour of most persons of good sense. Dissolvents of the old European system of dominant ideas and facts we must all be, all of us who have any power of working; what we have to study is that we may not be acrid dissolvents of them.*

And a little earlier in the same paper, he calls it "Goethe's most important line of activity" to have been "a soldier in the war of the liberation of humanity." In so far then as modern literature has been "liberating," it may well deserve the name of criticism, according to Mr. Arnold's account of the modern spirit as of criticism. We have just seen what he understands by that spirit, and few are likely to have forgotten his celebrated recommendation to the true critic, that he should endeavour disinterestedly to learn and propagate the best that is known and thought in the world. And as for culture, that again is the outcome of a spiritual activity, striving to know things as they are, to escape from routine and convention, to play round our stock ideas a stream of thought, and so to ascertain what is true and what is false in them. All which, it is more than probable, Mr. Arnold would allow to be characteristic of the movement

* "Essays in Criticism," p. 158.

associated with Voltaire, Lessing, Herder, Kant, Rousseau, Goethe, and their descendants in the present century. I am not sure that we have here a precise account of what modern literature is and has achieved; but though not precise, it is pregnant and helpful, and there is no better at hand. The modern spirit is revolutionary; it is intent upon "dissolving the dominant ideas and facts of the old European system," and one of its mightiest instruments is literature, the interpretation of life according to other ideas and by the assumption of other facts than were received three, or five, or seven centuries ago.

Now the greatest of these "established institutions" and "accredited dogmas" is Christianity. Observe that Mr. Arnold, in speaking of the times with which "we," that is to say, most educated men, are no longer in correspondence, chooses those very centuries wherein certain religious ideals were on the widest scale realized. When he speaks of the eleventh and twelfth centuries he means the Mediæval Church; when of the sixteenth and seventeenth he means the Council of Trent, Luther, Calvin, and the Puritans. The want of correspondence, if we look into it, is nothing but a strong disinclination to believe what our fathers have believed, a resolve that "we" will not be Christians any more. I am not forgetting that many an institution and established fact, whether in the year 1200 or in the year 1600, was profoundly out of keeping with the letter and the spirit of our Lord's most solemn affirmations. To that point I will return in good time. But the "dominant idea" which Mr. Arnold has in view is, after all, the Gospel as we have been taught it; the chief "established institution" can only be the Church; and if Voltaire and Frederick II. had enjoyed the satisfaction of reading Mr. Arnold's essay, they would have applauded the words on which I am commenting as an admirable enlargement of their favourite motto—*Ecrasez l'infame*. It is a mark of modern literature to be anti-Christian.

This every one feels, however vaguely; but I am compelled to believe that among Catholic teachers only a few here and there have at all awakened to the full meaning of it. Modern science is, to a great extent, anti-Christian; that we cannot help knowing; but modern *literature*, the books that most educated persons read, that many nourish themselves upon as their sole intellectual food, that are quoted, advertised, printed and reprinted, found in every house where books are found at all, and in every drawing-room as in every club library, that these, taken as a whole, are anti-Christian, and must be dealt with as such—who has looked steadily at the problem which this undoubted fact creates for the theologian, the preacher, the Catholic publicist, the director of consciences? I am most unwilling to

paint things in darker colours than is necessary; but whoever will take the catalogues of the best known publishers, French, English, or German, may speedily convince himself that this is no fancy picture. Test the facts in another way. How many of the great names I have mentioned from Voltaire to Victor Hugo are in any sense Christian? If we leave out of view the succession of poets and novelists that may fairly be entitled to the name in England, we shall find but a scantling abroad, and those not often in the front rank, whom any Church would own. Moreover with the advent of these anti-Christian classics we must also take into consideration the gradual but sure descent of mediæval and Greek and Roman classics from the place of pride they once occupied. I do not say they can ever be held in dishonour, save by the very ignorant; what I anticipate is the supremacy of modern classics over the vast multitudes whose culture is limited to their own tongue, and whose training has been upon modern lines. Joubert has acutely but severely remarked that Racine is the Virgil of the common people in France, thereby lessening Racine as much as he praises him. In like manner, it is not Bossuet nor Fénelon, but Victor Hugo and Rousseau that take the imagination of young French scholars, if indeed these "forward slips" do not make a classic repertory of M. Richepin and M. Zola. Schoolbooks on our side of the Channel instruct children by the effective method of quotation that as Lord Tennyson is the most poetical of laureates, so is Shelley a most delightful singer. I am not blaming such things so far as England is concerned, for they seem to me inevitable; nor do I look on them as by any means an unmixed calamity. My purpose in calling attention to them is to point out that the influence of modern literature extends everywhere, and cannot but increase; and again, that whilst in France it is undisguisedly brutish and unbelieving, in England it puts Shelley and Mr. Swinburne on a level with Mr. Browning and Lord Tennyson. If, then, French literature may be described, in the words of an apostle, as blaspheming whatsoever things it knows not, and in what it understands naturally, like the creatures without reason, in this being corrupted, there is only too much in English books, especially of late years, to justify the satire of foreigners, who declare that Englishmen add to their unbelief the further vice of hypocrisy. Anti-Christian poems, essays, and novels, though not the staple of the London trade, are no inconsiderable part of it. Will any one say that he perceives a reaction towards the Christian ideals setting in?

Such, then, most imperfectly sketched, is the movement of literature in these days. Culture, and the religion of culture, are forces which cannot and ought not to be overlooked; which,

in truth, from one point of view, may be fairly deemed as formidable an enemy as the Churches have ever contended with, and much more to be studied, in my opinion, than obsolete heretical systems which can now do harm to no man. If we, Christians and Catholics, are to fulfil our duty, whether to those of the household of faith or to strangers, we must weigh these things in a just balance. It will never serve to be fighting against dead and buried Arians or Monothelites, when another and a very different anti-Christ is walking the world. Neither can we say that the signs of the times are not discernible. There is thunder all round the horizon, but here, it seems to me, in modern literature, is the lightning ready to descend. How shall we ward it from our hearth and home?

"Ring the church bells," I hear some devout soul exclaim, "are they not blessed against lightning and tempest?" Yes, I think that should be done; it is a beautiful and significant rite with the virtue of consecration upon it. Let us make it known far and wide that the danger threatens, and that Christians are calling on one another to join in prayer that it may be averted. But we must employ human means as well. The bells should be rung in the steeple; yet, if I may continue the metaphor, is that any reason to forbid lightning rods where they are needed? I am far from thinking so. The chief trouble is to find what sort of lightning rod will disarm this peculiar and most deadly lightning.

In what I am now going to remark I shall take three things for granted. First, that the classics of modern literature are to a very large extent, as Mr. Arnold warns us, anti-Christian. Second, that education being conducted on the present "secular" methods, or, to use the mild but pernicious term invented by British caution, being "undenominational" it will be impossible to keep these classics from the hands of the rising generation. And, lastly, that we must face the danger whether we like it or no, because it is quite certain that only by facing it can we check its advance. The question is what ought we to do under these circumstances. I think it is Mr. Leslie Stephen who has said "Religions die of being found out." Let me turn this saying to my present purpose and give modern literature, which I have shown to be a religion, and which I believe to be a false one, the benefit of it. The first step in dealing with anti-Christian classics is to take them, as the French have it, *au sérieux*. So long as we rank Victor Hugo and George Eliot in the department of "light literature," we shall be no wiser than the savage to whose inexperience gunpowder is nothing but a heap of black grains. There was a time when poems were ornamental, like the sonnets which Italians compose for

academical gatherings; when Jane Austen could write a novel to amuse, and Thomas Moore a drinking song in which no "tendency" was apparent, save that of enlivening a company of friends. The tradition lingers that romances are frivolous, and that verse-making is a pastime. But surely this is to betray a most unseasonable ignorance of things as they are. The creature we are handling, which seemed to us a harmless green snake, is a cobra and has poisoned fangs. Words cannot express the greatness of the crime that modern men of genius have committed, or the cunning and unmatchable evil that lurks in their pages. It would seem as though a malignant demon had whispered to them how they should defile the noblest gifts and make wisdom itself a snare and beauty an argument against God. Carlyle has written a fiery denunciation of what he calls "Jesuitism," or the sin, which he takes to be universal in these latter days, of putting light for darkness, and bitter for sweet. Is it an exaggeration to say that, if this be Jesuitism, modern literature is infected with it from end to end? Think of Voltaire's "Pucelle" and "Candide," abounding in uncleanness; of Rousseau's filthy "Confessions," and the loathsome sentimentality which he parades as a virtue that has never quitted him; of Goethe's cynicism, hard-heartedness, and ingrained frivolity, as exhibited in "Wilhelm Meister" and the "Wahlverwandschaften;" of George Sand's unwomanly boldness and want of shame in her earlier romances; of Heine's claim to be the modern Aristophanes because he had out-done the satyr-like revellings of that almost unreadable of heathen comedians; think again of Victor Hugo's delight in monstrous and impossible creations, of his maudlin compassion for those that make goodness a mockery, and his zeal against every one that hates vice; of Théophile Gautier's deification of physical loveliness and revolt from all that in civilized countries has been called decent; of Mr. Swinburne raving against Providence, and accounting purity a disease or a superstition; of Mr. Matthew Arnold's austere atheism when he writes poetry, and self-sufficient disparagement of Christian and Theistic beliefs whenever he turns to prose; of George Eliot's dismal conviction that there cannot be a God, that the soul is not immortal, and that were it not for resignation and sympathy earth would be hell, as even with them there is no heaven; and how many more is the list to contain? I say, think of them, mighty in speech and invention, their lips touched with Promethean fire, and reflect that the gods to which they have ministered are lust, and ignorance, and self-indulgence, and cruelty, and despair, and horror. They have canonized the seven deadly sins; and the sum is, they have done what in them lay to draw down

anathemas from heaven upon the race to which they belong, and which has trusted them almost to its ruin. A serious indictment; but there needs only such attention as any one can bestow whilst he reads, to justify it. I should say that few experiences can equal in astonishment and pain the feeling with which one turns from sound literature, such as Shakespeare and Walter Scott, to the vaunted productions of modern men. "Can it be for these things that Goethe is cried up?" one asks in amaze, when one has read "Wilhelm Meister." "Are monsters so unreal the productions of genius?" is a natural question on closing "Notre Dame de Paris." "Ought a human being simply to obey his first impulse?" we inquire of Mr. Swinburne and the æsthetic school. It is all very strange, unintelligible, and overwhelming, if we do not admit that evil itself must have for some men a fascination. "Evil, be thou my good," cries the fiend in Milton. And modern literature echoes the cry. Let us understand, then, in what times we are living. Worse than heathen abominations challenge our gaze, not in the form of obscene rites and maddening gladiatorial combats, but in pages brilliant with genius, and made a temptation by the very gracefulness and natural *abandon* of their style. It is assumed that we shall think and feel as do the masters of divine poesy, the eloquent rhetoricians who are for ever bringing forth what things Bossuet would have frowned upon as *nova, pulcra, falsa*. How, it is asked, can we decline, for example, to reverse Shelley, though he preached the most flagrant violation of the moral law by his doctrine concerning marriage? Or shall we not speak, as George Sand does, of "our great and tender-hearted Rousseau," even whilst remembering that he sent his five children to the foundling hospital?"* And the recent publication of George Eliot's "Life" has given rise to a discussion in which more than one critic has taken for granted that, since the unhappy lady was a genius, which is only too certain, she must have been impeccable, which is just as certainly false. But I am not affirming that the creators of modern literature have all sunk below the standard of common morality, notorious though it be that most of them have. My contention is that they have set up a wrong standard and perverted their splendid gifts to the preaching of wickedness. Whilst endeavouring to new-create European institutions, they have done wonders to throw us back, not beyond Christian ages only, but beyond the best days of Greece and Rome. Civilization is upheld, as the Nihilist assault upon it may teach us, by reason, self-restraint, fidelity to promises made, domestic purity, and the suppression of animal

* See, on this unpleasant subject, "Les Charmettes," by George Sand.

impulses which crave to be satisfied at whatever cost. Again, it is belief in a next world that enables men to bear more or less contentedly with this; and to deny the existence of everlasting righteousness in God is to urge them upon desperate deeds, as though nothing was to be hoped from patience and piety. What, then, must be our judgment of a literature that employs its seductions to lead men away from God and eternal things, and to intoxicate them with the delights of "free sentiment," of *le pays des chimères*, of reveries in which all sins are spiritually committed, of individual licence, and of revolt against all that is lifted up or worshipped except their own selves?

Reflections such as these throw a strange light on the meaning of Mr. Arnold's "disinterested endeavour to learn and propagate the best that is known in the world." Disinterested, as how? Why, as having no interest in learning and propagating the established Christian ideals. Disinterested about the solemnity of marriage, as when the most degrading theories are propounded, and divorce, and even free love, substituted for the sacrament of the family. Disinterested about purity of thought and deed, which is but "an accredited dogma," come down from the twelfth and sixteenth centuries, and incompatible with the philosophic largeness of "Werther" or "Jacques." Disinterested about property, so that ingenious pleadings shall quite do away with the distinction between mine and thine, by making all mine if I can persuade the legislature to declare it so. Disinterested about obedience to lawful authority, and willing, for the sake of experiment, to try whether anarchy may not prove as possible a form of human existence as any that have gone before. Disinterested, most of all, about religion, magnanimous in the matter of heaven and hell, divine judgment, the "sinfulness of sin," the difference between good and evil when you come to look into it, the entire relation of man to his Maker, if a Maker in truth he has. All these kinds of disinterestedness are extant in the modern literature which Mr. Arnold would have us call "liberating." And to hesitate about all or some of them he would, not ungenerously, blame as a relic of Philistinism; for that is pretty much the outcome of it all. Hold fast by the Christian doctrines, and show your dislike of their opposites, and you must be prepared to undergo the rebuke of the cultured as a *terre filius*, a Philistine, a narrow-minded fanatic.

When I read, in Mr. Arnold or anywhere else, words of such import, I am tempted to believe that "culture" is little else than the "secret doctrine" of Diderot, to which significant allusion may be found in Rousseau's "Confessions." "Le sommaire de sa morale," says Rousseau, "consistait en un seul article; savoir, que l'unique devoir de l'homme est de suivre

en tout les penchants de son cœur." It would be difficult to maintain that "the hermit" himself believed in a more exalted code of ethics; but he professes that Diderot shocked him.* Observe, therefore, that under what name soever the modern spirit veils its operations, be it "intellectual freedom," "culture," "perfection," "light," "the higher morality," or any other sounding phrase, its result is ever the overthrow of established ideals, and, consequently, the enthroning of individual liberty in their stead. *Fais ce que voudras*; the true monk of Thelema is the modern citizen. To his great sovereignty genius itself must bow. When he calls himself citizen, he means that the city depends on him. Customs, rules, and authorities, he would say, bind only the weak who are foolish enough to honour them as coming down from the past. All he honours or cares for is the present, and in the present whatever happens to afford him enjoyment—*les penchants de son cœur*. Self-will is deified, and modern literature has become its sycophant and slave.

It is impossible just now to dwell upon the relations of "culture and anarchy," without casting a glance at the embodiment of both to whom Paris has lately paid the highest funeral honours—M. Victor Hugo. A more striking example of the sycophancy of modern genius cannot be imagined. Victor Hugo's conduct towards the French people is admirably sketched in the well-known epigram: *Il faut bien que je les suive, je suis leur chef*. He became, as one might say in the manner of Sir Boyle Roche, the idol of his nation by worshipping at its shrine. From first to last his aim was to affirm himself, and when he found that such affirmation is not easily to be reconciled with devotion to the Christian ideals, he discarded them, and was ever after, in Mr. Arnold's phrase, "disinterested" about such things. But he saw very early that the way to affirm himself was to express, in the boldest form and colouring, whatever opinion ruled France, which is to say, Paris, changing when Paris changed, and conveniently forgetting the creeds of yesterday. One rule he never broke, and it was the secret of his unparalleled success; he could not allow that Paris, *la ville lumière*, was ever in the wrong. When Paris was Royalist, he was monarchical, and condescended to draw a pension from two kings; whilst it bore with Louis Philippe, he was not unwilling to find good points in the crowned Ulysses; and when it drove him out and proclaimed a Republic, Victor Hugo put off his senatorial robes and would be a peer no longer. It was not Paris that welcomed "Napoleon le Petit," whether as President or Emperor; and the poet in exile thundered forth "*Les Châtiments*," confident that

* "Confessions," Partie ii. livre 9, p. 442.

the city of light would read and applaud them. By-and-by the Empire crumbled to dust. A third Republic—cynical, vulgar, impure, and atheistical—arose on the ruins of a Government which could not be more shameful than itself; and Victor Hugo, a son of the age and of anarchy, returned to hymn the glories of Paris crusading against all things sacred, to reflect in the mirror of his verse the folly, the passion, the mad blasphemies, the wild destructive plans and theatrical delusions, which have made France a gazing-stock to less stricken nations. In this way did a man of real, though not perhaps transcendent, genius endeavour “disinterestedly” to “dissolve the dominant ideas and facts of the old European system.” All he had to consider, apparently, was what ideas and facts were dominant in the Parisian mind, and to enunciate them with a stentorian voice in the hearing of the universe. And his reward was given him: apotheosis while he lived, the public mourning of a whole nation as he lay dying, and a funeral such as no prince may hope for in these democratic days, with the millions of Paris defiling past his bier under the Arc de Triomphe, and proclaiming him greater than Voltaire and the first of Frenchmen. Yet he was a sycophant, lacking the sturdy independence which has inspired many a lesser man to do battle against his own people for “the true, the just,” and has merited, by its glorious frankness, a prophet’s not a flatterer’s reward—stoning, and not an arch of triumph.

This is no digression. What Victor Hugo was in a supreme degree, others have also shown themselves to be—men to whom we are indebted for the “liberating movement,” which is likely to liberate Europe *from* the truth instead of by it. And I am surely justified in urging those who can to publish abroad the genuine character of that movement, and so disarm and overthrow the evil it propagates. But to do that will necessitate the founding of a school of criticism which shall indeed set forth “the best that is thought and known,” as an antidote to modern literature. It will not be “disinterested” criticism, for it will test all things and hold fast that which is good by cleaving to the axioms of reason, and insisting everywhere on the essentially moral and religious nature of man; confessing, therefore, that light has come into the world out of eternity and disclosed to us in a living God the fountain whence beauty, truth, and holiness for ever flow. It will appeal to the cloud of witnesses that in all religions and literatures, except the modern, have agreed in upholding these solemn truths. But when it has done so much, it will go further and make it palpable to the gross touch even of our century that a literature which denies these things, which laughs them to scorn and tramples on them, cannot possibly lay claim to be “the best that is known and thought.” It will point

out the difference between simply dealing with evil things, as the artist who would body forth the forms of life cannot help doing, and delighting in the picture of evil things because they have taken the heart captive, which is what modern genius has done again and again. Nor will it speak in ignorance, or imagine that vague declamation is proof. It will, by the grace of God, descend into this arena with the shield and spear of knowledge, able to make good what it affirms, and to show the evil as it truly is. For criticism avails nothing except in a certain detail, and men are not easily convinced where an ingrained prejudice inclines them to exalt genius as a light which cannot lead them astray. There is nothing to be done in such cases but to show, book in hand, that genius can mislead and be itself misled. The appeal is to evidence, and the evidence must be forthcoming. It is the province of sound criticism to furnish it, not by extenuating anything, or setting down aught in malice, or making things out to be worse than they are, but by distinguishing between the good and the evil elements which lie side by side in modern writings. I have spoken, it seems to me, with sufficient emphasis of the sin and shame that disgrace literature as it now is cultivated. I have not shrunk from saying that in scope and often in contents it is anti-Christian. And I think it a foremost duty of sound criticism to reiterate these unpleasant facts till they have made a deep and lasting impression on the world of readers. If, then, I have guarded myself against the possibility, as I trust I have, of being misconstrued, I may turn for a moment to the quarter of the heavens where, unless it is my fancy, I discern light breaking through the clouds. What if, out of so portentous an evil as modern literature, it were given us to extract some good?

To come to the heart of the matter. Here is a view of that literature not quite identical with the view taken by Mr. Arnold in the essay I quoted some pages back, a view formulated by Victor Hugo in the preface, dated October, 1835, to "*Les Chants du Crépuscule*." He wrote, and I think not untruly:—

"*Tout aujourd'hui, dans les idées comme dans les choses, dans la société comme dans l'individu, est à l'état de crépuscule. De quelle nature est ce crépuscule? de quoi sera-t-il suivi? Question immense, la plus haute de toutes celles qui s'agitent confusément dans ce siècle où un point d'interrogation se dresse à la fin de tout. La société attend que ce qui est à l'horizon s'allume tout à fait ou s'éteigne complètement.*"

And lower down he speaks of "*cette brume au dehors, cette incertitude au dedans, ce je ne sais quoi d'à demi éclairé qui nous environne;*" of "*le coin sombre et le point lumineux dans tout ce que nous pensons.*"

No one will deny that the hour is, in many aspects, an hour of twilight; but whether the morning is to follow, or night to fall, that is a secret where secrets are surely kept. We cannot forebode the future, we can only determine it by our present deeds. There is no manifest destiny compelling men to renounce a truth they have believed, or to exchange the bread of life for the gilded husks called culture, enlightenment, and the rest, which would hardly satisfy honest swine. A new world will doubtless be born out of the old; what kind of new world, then—believing or infidel? I say much depends on the way we Christians deal with literature. Of the right criticism which, as I think, is a crying want, it will have to be laid down in another sentence of Victor Hugo's, that it must know how to keep itself above the tumult, unshaken, austere, and benevolent, having in its heart that sympathetic understanding of revolutions which implies disdain of riot, and a respect for the people that shall be near akin to contempt for the rabble who are its counterfeit. For "revolutions" read "social changes brought about as men grow different from their ancestors," and I do not see much to quarrel with in these words. They grant that between the twelfth and sixteenth centuries and the nineteenth there must be a lack of correspondence; they admit that changes are necessary, and need not be wrong; but they likewise indicate that wisdom cannot let herself be hurried away in a tumult regardless of the point to which things are tending. I will put the conclusion as tersely as I can—change all your institutions and accredited systems if the time requires it, but do not renounce your Christianity.

Of course we have inherited from the twelfth, and still more from the sixteenth and seventeenth centuries, institutions that have had their day. The entire system of aristocratic, military, and feudal ideas is giving way before another which, by whatever name we call it, must evidently take into account and reconcile with civilization the modern ideas, democracy, representative government, the rights of labour, *la carrière ouverte aux talents*, the higher training of women, the union of education with manual toil, the use of scientific inventions by the poor as well as the rich, the universal diffusion of art and literature so that beautiful sights and wise thoughts shall be within reach of all, the brotherhood which consists in meeting strangers with the conviction that, "for intellectual and spiritual purposes, Europe is one great confederation, bound to a joint action and working to a common result, whose members have, for their proper outfit, a knowledge of Greek, Roman, and Eastern antiquity, and of one another."* Is there a single idea in this recapitulation to which

* "Essays in Criticism," p. 39.

Christianity stands opposed? Not one, as it seems to me. That creed existed before feudalism and will survive it. I am continually struck with the freedom of Church and Gospel in respect of a thousand things which men have insisted on identifying with both. It was a fine saying of Savonarola's when questioned as to his projects, *Le mie cose erano poche e grandi*. Such are the things of Christianity, few and great. I know they are endlessly fruitful, but we must not confound what has been grafted on the tree with its proper yield, nor imagine that religion will produce in a cultivated epoch only such effects as ruder times can show. Plato would have been another kind of Christian than the Red Indian convert, though both would have partaken in the same truth. And what a rare and splendid thing was the faith of Dante? How magnificent would have been the faith of Shakespeare had he held the Church's creed! There are divers gifts, but the spirit is one.

Now this it is that makes the present age a time of twilight, and offers to criticism of the right kind a task as cheering as, I allow, it is difficult. Modern literature, so far as it is unclean, anti-Christian, or atheistic, deserves only burning. It can work no good; we have daily proof that it has wrought immense evil. But I say that criticism avails nothing except it be founded in truth. If, then, modern literature holds in it noble and humanizing elements, these should be delivered, where possible, from association with elements which are fit for the fire. Is it anywhere possible? I speak under correction, but I think the attempt worth making. There is, perhaps, not one of the authors I have mentioned, save the obscene realists, that has not written true and tender words, lit up with the radiance of genius when it suffers the divine spirit to shine through. Victor Hugo, George Sand, Heine, had their better moments; troubled hearts they were, swept by the whirlwind of passion, but sometimes another spirit touched the chords and drew strange and lovely music from them. In Rousseau himself there are wide gleams of light; and Goethe's tranquillity is not always Epicurean but something nobler. George Eliot has taught many the detestable creed of Positivism, yet her Christian reminiscences win upon the reader till he would fain forget that genius, not faith, has dictated them. But let these examples suffice. The problem is, in the language of alchemy, how to pluck the rose of life out of the flame. It might seem hopeless but for two considerations: first, that if the rising generation is compelled, as it is, by the world's rulers to study modern literature, there must in the ways of Providence be some means of "making with temptation issue;" and secondly, that, when we turn to the new classics, we find in them not a few pages which, taken apart from the general scope of their

authors, are healthy and sane. Not every book by a pernicious writer is a bad book. And here criticism should come in, to winnow as well as to burn. Let the evil be met, and refuted or suppressed as its quality may demand; but if there is good remaining, let that be acknowledged. An austere but an understanding criticism is what we need. I confess that we have very little of it. When looking round in an earlier page for instances, the name of Frederic Schlegel naturally occurred to me. Yet I do not think he is the kind of critic to help us now. We want a Catholic Sainte-Beuve, not a Frederic Schlegel. But some hopeful work has lately been done, though it is not on permanent record; for example, the critiques on modern authors in that excellent periodical, the *Stimmen aus Maria Laach*; and, nearer home, Mr. Lilly's painstaking and profound study of Balzac, which appeared, I think, in the *Contemporary Review*. These are good omens. But they are drops instead of a shower.

Well, it will be said, no wonder! To a sound criticism there goes insight as well as reading, and acquaintance with the doctrine of the Church besides a facility in understanding writers from whom, at last, you differ by the breadth of the sky. I grant it. We cannot hope for a multitude of such critics; but why are there so few? And why is no effort made, so far as I know, to train men for this apostolate? It is difficult, dangerous, necessary, and promising in results. If it is a duty the grace to do it aright will not be lacking. Priests are trained to as perilous a work in the confessional; and much of the danger in this case would be averted by co-operation, for it is the solitary student who feels his weakness, not the associate of an ardent band of workers. Thus much I would venture to suggest. But I cannot conclude without hinting that, whilst critics are few, readers are many, and that whoever knows himself to be unfitted for the task of critic should be indeed careful what he reads. The time is not yet come, if it ever will, when an average human being can assimilate poisons. Let him rest assured of one thing: the danger to his faith from current literature, even when it is the product of genius, quite equals that which he is perhaps ready to admit as regards his morality. An improper book is condemned on the face of it; there needs no Index to tell us that. But the most dangerous modern books are sentimental rather than openly immoral; and their sentiment preaches effectively that doctrine of Diderot, *Suivez les penchants de votre cœur*. If we had a sound criticism readers might be instructed what to read and what to eschew. They might be made sensible that a great part of the literature now prized will not endure, because it is hollow at the heart and false; they might be shown reasons for withholding their esteem from the new masters, and

be led to cultivate a higher and loftier spirit by acquaintance with the imperishable literature which was either a prelude to Christianity or mingled with its grandest strains. But until we have such a criticism, the summary advice I should give to readers as regards modern literature, the literature of Voltaire, Goethe, Victor Hugo, and George Sand, is—let it alone. I do not say that of men whose station in the world, or whose ecclesiastical position obliges them to be judges for others and for themselves. But such are not the majority. It was a remark of Mr. Stuart Mill, in his work "*On Liberty*," that by her discipline concerning books the Catholic Church is enabled to know the evil, as it appears in her eyes, yet to keep it from those of her children whom the knowledge would harm. We may be sure that in saying so Mr. Mill has struck on a great truth. I am not now rehearsing the rules of the Index, or entering on the wide question, with all its details, of a free press. But I do say that every man is bound to observe an Index of forbidden books, of books forbidden to him, such as he can easily tell would dim the lustre of his faith, make belief harder, hurt his moral sense, or leave him enfeebled and irresolute in presence of temptation. There can be no question about the sanctity or the binding power of that law. An imagination nourished on Rousseau is a foul thing; a heart petrified by Goethe, or made frivolous by Mr. Matthew Arnold, will have but a sophistical excuse in the day when all secrets shall be laid bare. I contend that there are those whose stern and solemn duty it is to make themselves acquainted, not only with the best but with the worst that is said and thought in this nineteenth century. But in affirming this I am no more thinking of the bulk of Christians, Catholic or Protestant, than I am supposing that every man who has a care for his health should study the horrors of the charnel-house or be frequent in the dissecting-room. What I do say is, again in the words of Victor Hugo, but applying to the Christian teacher his definition of the office of a poet: "*Si l'homme a sa voix, si la nature a la sienne, les événements ont aussi la leur. L'auteur a toujours pensé que la mission du poète était de fondre dans un même groupe de chants cette triple parole qui renferme un triple enseignement, car la première s'adresse plus particulièrement au cœur, la seconde à l'âme, la troisième à l'esprit.*"* Man and Nature and the march of history are the staple of modern literature. It behoves the Christian critic to show that they can and ought to be interpreted in harmony with the Gospel of his Master.

WILLIAM BARRY, D.D.

* "*Les Rayons et les Ombres.*" Preface.

ART. IV.—THE PRESENT POSITION OF THE ARGUMENTS FOR THE EXISTENCE OF GOD.

I NEED hardly protest that I have no intention of attempting any complete, or even connected, exposition of the proofs of the existence of God ; for an adequate treatment of such an all-important subject would of course require, not a few pages of a review, but a volume. Nor is want of space my only reason for not undertaking such an enterprise. Only extreme vanity or ignorance could suppose that the whole subject had not been long since threshed out, and that any new argument remained to be discovered. I would indeed go beyond this, and say, that to my own mind the proofs have never been put in a clearer or more satisfactory form than that delivered by pre-Christian antiquity into the guardianship of the Church, and enshrined in her philosophy. I believe that modern objections, on the one hand, and the kind of assistance we derive from science, on the other, both lead us to follow more closely than ever the exact lines of argument followed by St. Thomas. At the same time, we have to express these in modern language, so as to bring them into contact with present thought ; and this is the task I shall very fragmentarily and imperfectly attempt.

If this paper should be read by persons unaccustomed to philosophical speculation, I fear they will be disposed to think my arguments very feeble and inadequate, and may even be shocked to see how little I have to say on behalf of a conviction which is the life and centre of their whole being. Part of such apparent deficiency must be ascribed to a want of clearness on my part in stating difficult and abstract matters, of which I am very sensible. But there is a further reason for disappointment, which lies in the nature of the case, and which it is important to remark. Cardinal Newman has abundantly shown that the arguments producible for any conviction are by no means proportioned to the truth and importance of such conviction, or to the intensity with which it is held by mankind. Indeed, paradoxical as it may seem, the cogency and abundance of such arguments are rather in an inverse ratio to the fundamental importance and necessity of the conclusions they enforce. What proof have we of the validity of those ultimate laws of thought upon which our very existence as reasonable beings depends ; or of any external reality at all ; or of those general principles of morality without which human society could not exist ? Every one who has studied such questions must at first have been disappointed when he discovered how very little argument

could be adduced to prove any one of these universal convictions of mankind. Moreover, the sense of inadequacy is increased, in this particular case, by the character of the grounds on which the existence of God is really held by each of us, as distinguished from the arguments producible to others. The sense of moral accountability and dependence constitutes an argument to the mind of every man not "debauched by philosophy," which lies outside the circle of reasoning as distinct from reason. Still less can it approach what is to the Christian, and even more to the Catholic, immeasurably the strongest evidence of the divine existence—the revelation of God in the face of Christ Jesus; His perpetual presence and mysterious union with the Christian soul; the indwelling of the Holy Spirit, whereby we recognize our kinship to our divine Father;—all these are beyond the reach of argument, and illumine the believing heart with a light beside which all earthly arguments are dim indeed.

I. I need not consider at length the so-called "ontological" proof that God exists. In the form which St. Anselm first gave to it, it was rejected by the whole School,* and substantially for the same reasons which have induced Kant and all since his time to abandon the Cartesian argument. It is indeed obvious that from the mere analysis of the idea of God we can extract no evidence of his actual existence; we obtain simply a hypothetical proposition, that if he exists, he must be a necessary being. We do not go outside the circle of our own minds, or obtain any evidence of the objective reality of the idea with which we started. This seems so clear that I should not have mentioned it, but that the argument is now confounded with another (of more importance and validity as it seems to me), which has been thereby discredited. Thus both Principal Caird and Professor Caird

regard this argument as pointing to the ultimate unity of thought and being, which is the presupposition and end of all knowledge. Taken in this sense, the argument is but one example of the principle that abstract or imperfect conceptions of reality give rise to contradictions, and so force us to put them in relation to the other conceptions which complement and complete them.†

This language is somewhat vague and confused, as might be expected of Hegelians; but it seems to point to a totally different argument. St. Thomas urged, and to my mind with considerable force, that all knowledge presupposes a correspon-

* As far as I know, Ægidius was the only Schoolman who supported it. But Scotus, in one place at least ("De Princ. Rerum," cap. iv. No. 24), and St. Bonaventure, give it a qualified support.

† "Philosophy of Kant," p. 645.

dence* between thought and reality, that there is a primary basis and standard of thought, and that we may therefore fairly conclude that there is a like basis and source of reality. This is the third argument for the existence of God in the "*Summa contra Gentiles*," the fourth in the "*Summa Theologica*;" and its repetition in the latter work shows that St. Thomas' deliberate judgment was in favour of its validity. He appears to have derived it from the appeal to human reason, which runs through all the works of St. Augustine, and which Thomassinus has crystallized into one sentence of his lucid and elegant Latin:—"The primary and highest principles of logic, and indeed of all the arts and sciences on which the rest depend, are so many eternal, unchanging, evident rules and laws, which can only shine upon us by a light borrowed from the everlasting sun of truth."† St. Anselm repeated the same argument more distinctly,‡ besides the one with which his name is particularly associated.

But it had so far rather been implied than explicitly stated, that such first principles in the mind are derived from an external reality to which they correspond, and, so far as I can learn, St. Thomas first gave this development to the reasoning. His argument differs from the earlier one in adding the appeal to the gradations of human knowledge as an evidence of the primary nature of its first truths. The result of this appeal is to bring out more plainly the objective value of the whole process. As long as we speak only of the fundamental truths of human knowledge, of the universal and necessary bases of mathematics, logic, or ethics, it may be plausibly objected that we are dealing merely with abstractions of the mind. But when we realize that these primary truths are the starting-points and standards of a process of comparison which is an essential element in all our knowledge, this objection loses its force. We come to see that if there be any such correspondence at all between thought and reality as is implied in knowledge, there must be some primary Being without answering to the ultimate basis of thought within. The latter is indeed in our own minds merely an abstraction; but it would be untrue (thereby invalidating the whole process of knowledge which rests on it) if it had not its correlative in an actual reality without.

This argument may be fairly named "psychological," to correspond to the terms "cosmological," "teleological," and "ontological," applied to the others. If we bear in mind the

* It is well to note that he employs this word: "*Correspondentia adæquatio rei et intellectus dicitur*" (i. Ver. 1).

† "*De Deo*," i. cap. 23.

‡ "*Monolog.*" cap. 66, 68.

amount of authority in its favour, especially the great names of St. Augustine and St. Thomas, we can hardly fail to think it has been subsequently neglected. The strict Thomists indeed defended it against the later sceptics among the Schoolmen, and it always appears among their proofs of the existence of God, down to Liberatore and Zigliara; but they merely repeat St. Thomas's own words, and attach no particular importance to it. Tongiorgi omits it altogether, while Palmieri and Caretti think it may be considered a "*suasio*," but not a "*persuasio*." F. Kleutgen alone has dwelt strongly upon it, especially in the "*Institutiones Theologicæ*," which he unfortunately left unfinished. Several causes have probably contributed to this comparative neglect. The arguments for a first motor and a designer of the world are so much more easily stated, and so much more persuasive to non-philosophical minds, that the psychological proof has seemed superfluous; also, the language of the Vatican Council, enforcing St. Paul's teaching that the Divine existence is to be demonstrated "*per ea quæ facta sunt*," points at first sight in the same direction. Finally, I suspect the proof has suffered to some degree by being confused with that upheld by St. Anselm and Descartes. I have already, I hope, said enough to show that this is not the case. I think it must be equally clear that the argument lies strictly within the lines of the teaching of the Apostle and the Vatican Council. The laws of human thought are as much part of the creation as the laws of the physical universe; so that an argument based upon them will be equally "*per ea quæ facta sunt*" with those drawn from efficient and final causes. And although it perhaps cannot be stated so as to appeal to many minds, there seem to have been some at every time who have found it specially persuasive. Cicero, Fénelon, Cudworth, and, above all, St. Augustine, would echo Tertullian's words—" *Ut et naturæ et Deo credas, crede animæ*." At the present time, beyond all others, we cannot afford to let any argument lie idle which has been found to carry conviction to a whole class of minds, and this is my excuse for having dwelt on it so fully.

II. The cosmological group of arguments, which proceed from the phenomena of the universe, to prove the existence of a first motor and efficient cause, are so much better known than the psychological proof, that I need not recite them in their ordinary shape. It is more important for my purpose to dwell upon the objections that have been raised to them.

The Associationist school urge that there is no necessary connection between cause and effect, but merely the association of antecedent and consequent, and that hence no argument from cause and effect justifies us in passing beyond experience. Such

an objection, if allowed, would indeed overturn the cosmological argument for Theism, but a great deal more would go with it which the objectors would less like to lose. It would equally invalidate all prevision, whether of science or of every-day business. We cannot take a step in this life without the hypothesis of the uniformity of Nature, which (as Dr. Ward so conclusively showed in the pages of this Review) cannot possibly be derived from experience: it is rather the condition which makes experience possible. Nor can science afford to admit that we have no knowledge of aught beyond the ken of sense. The existence of the luminiferous ether, for example, is universally admitted; yet it is known to us directly by none of the senses, and indeed must possess properties which differ widely from any object that we can see, or hear, or handle. It would be interesting to see the logical sieve which could allow the existence of the luminiferous ether to pass, and yet exclude the arguments for the existence of God. In this, as in other kindred questions, the Associationist view fails to satisfy the first criterion of a philosophical hypothesis—it does not account for all the facts.

It would be almost more plausible to say that the law of causality is a merely logical one, and of no objective validity; that it is a "regulative," not a "constitutive," law of our minds; that the colour is in the glass through which we look upon the landscape, and not in the objects themselves. It is indeed the masterpiece of scepticism to make the very universality and necessity of a belief testify to its being purely subjective. But the supporters of this objection have omitted to remark that the same testimony which affirms the law of causality affirms at the same time, with equal emphasis, its objective validity; and that we have no right to choose arbitrarily what we will accept and what reject of the deliverance of consciousness. There is no meaning in a law of causality unless as applied to objects outside itself, and it cannot be true in any intelligible sense unless it be true of them.

Thirdly, Kant and his followers have put forward a much more specious difficulty. They admit that the law of causality leads us to the knowledge of a first cause and mover of the world; but they affirm that it only justifies us in asserting the existence of a Supreme Being who should be a part of the universe—in their own language, an "immanent," not a "transcendent," Deity. They urge that to pass from the contingent to the necessary, from the finite to the infinite, is a step impossible to reason, a *μετάβασις εἰς ἄλλο γένος*, which the mind cannot be made to take. This objection completely evades the true meaning and force of the cosmological argument. Its very point is that the human mind is driven to take this "salto mortale," which alone

can land it on firm ground. The universe is inconceivable and inexplicable, unless a Being is supposed to exist beyond it: the contingent postulates the necessary, the finite postulates the infinite. This may be best shown, as it seems to me, by taking one case, the need of a first cause of all movement or change; and by appealing, not to the ordinary experience of life, but to science, in which that experience is verified and set forth accurately. Modern science, as is well known, takes a mechanical view of the universe; and the more completely we admit that it is governed by the laws of mechanics, the more clearly will it appear that we must affirm the existence of a prime motor beyond the universe, because outside the series of changes which are the subject-matter of physical science; for there are only two alternatives beside this, and both of them are unacceptable to science. The first is, to deny Newton's first law of motion, and so to pull down about our ears the whole structure that has been raised thereon. Some of our bolder Agnostics have not shrunk from such a course. Professor Tyndall, for instance, invited the British Association in 1874 to abandon the definitions of matter found in our text-books, and to look upon it as "the dawn and potency of all the forms and qualities of life." If these words have any meaning, they obviously suggest that matter can change itself. Mole-schott more explicitly rejects the basis of all physics. He says: * "One of the most general characters of matter is to be able, under favourable circumstances, to put itself in motion." The great sophist of our time and country makes a similar assumption the basis of his whole process of evolution. He supposes this to start from the absolutely homogeneous, which he proceeds to say is unstable; and he then treats this "instability of the homogeneous" as if it could be an internal principle of action. He has been led into this confusion by forgetting that by true instability physicists mean a state in which, equilibrium being very delicate, a very slight external force is enough to disturb it; whereas his own hypothesis debars him from any force at all external to the universe.† It does not require much reflection to see that no internal change whatever could take place in a truly homogeneous universe, without violating the first law of motion.

There is still a second alternative which is sometimes put for-

* "Kreislau des Lebens," Brief 17. I am indebted for this quotation to M. E. Naville's "Physique Moderne," an exceedingly suggestive work.

† I cannot forbear quoting Mr. Malcolm Guthrie's homely remark in his very able "Examination of Mr. Spencer's Theory of Evolution:" "A country friend of mine describes evolution as 'a lump with a start in it.' The instability of the homogeneous is 'the start.'"

ward—the series of causes and effects might be infinite, and so we might never come to a first cause at all. I will not here enlarge upon the metaphysical difficulties involved in such an hypothesis, which even Kant thought were formidable; they may be found in most manuals of philosophy. But I have to point out, in the first place, that evolutionists at any rate are precluded from resorting to it. Evolution being a process, obviously implies a commencement at a definite, however distant and unknown, point in the past. If we suppose, for instance, the nebular hypothesis, in its extremest form, to be true, we are all the more constrained to believe that movement began at some moment in time. How? Either from some cause in the matter itself, which is contrary to the first law of motion; or without any cause, which would be to deny the basis of all science; or, finally, from some extraneous cause. We are thus brought back finally to Aristotle's and St. Thomas' "*primum movens immobile*."

It is also to be remarked that natural science gives no countenance whatever to the hypothesis of an infinite series of causes; as far as it can bear witness at all, its tendency is very strongly the other way. The theory of heat most decidedly points to a definite origin of the present state of things at a certain and perhaps calculable date in the past. It is true that we are not thereby constrained to believe in creation at that assignable date; physical science alone will not take us so far. It is open for any one who chooses to follow Professor Clifford in denying creation; but he will have to admit that there was an absolute commencement of the present state of things, and that this was brought about by other than the now visibly acting causes.* The present state of things is in its nature finite; as it must one day have an end, so it must have had a beginning. Any hypothesis, then, which assumes that the series of causation is infinite, must be purely imaginary, and can derive no support from facts.

An argument akin to the cosmological proof of the existence of God has been brought forward by Lotze and his school. I derive my knowledge of it mainly from Professor Bowne's "*Metaphysics*," an exceedingly able American work; for Lotze's own writings, though highly interesting and suggestive, are hard to follow. His point is, that none of the explanations given by philosophers to account for the interaction of bodies are satisfactory. The only tolerable view he takes to be the existence

* Clifford's First and Last Catastrophe (in "*Lectures and Essays*," vol. i.) The whole subject is most fully stated by Professor Tait ("*Recent Advances in Physical Science*," p. 22), and Jevons ("*Principles of Science*," vol. ii. p. 439).

of "a basal unity," which can render the mutual relations of beings in the universe possible. As he states it, the argument seems to me hardly to escape the dangers of "occasionalism" on the one hand, or of pantheism on the other. But I can believe that, once the existence of a first cause is recognized, his continual action in the universe throws a clear light upon the otherwise obscure problem of interaction. In this way Lotze's argument would legitimately confirm the cosmological proof; just as any scientific hypothesis is strengthened when it is found to explain indirectly other phenomena than those for which it was originally designed.

III. A further question remains to be considered. We have seen that no explanation can be given of the existence and phenomena of the universe, unless by supposing some cause and mover beside it. But this is not sufficient; we are in like manner compelled to admit that the universe is unintelligible and inexplicable, unless we admit that there is an intelligence beside it. This brings me to the *teleological* proof of theism.

It might at first sight have been supposed that the purely mechanical view of physical science which now prevails, would have lessened the force of an appeal to the evidences of design and adaptation in the universe. The reverse, however, is the case. In the first place, the necessary laws established by this conception of Nature have non-suited all those appeals to "chance" which were the favourite resource of the freethinkers of a former age. But they do much more than this. Force, acting according to necessary law, can of itself determine nothing, but must work in given circumstances and conditions, which may be called the "arbitrary constants" of a system. Gravity, for example, is compatible with rest, with movement in a straight line, and with every possible variety of orbital motion. Dr. Chalmers first called attention to this in the first *Bridge-water Treatise*. He remarked that the *collocations* of the material world are at least as important as the laws which objects obey, and that mere laws would have afforded no security against a turbid and disorderly chaos. This statement is so obvious that I am not aware it has ever been called in question. Mr. J. S. Mill admitted its truth; and it has been so clearly stated by Professor Huxley that I venture to quote his words, though they have often been reproduced before:

The more purely a mechanist a speculator is [he says], the more firmly does he assume a primordial molecular arrangement, of which all the phenomena of the universe are the consequences; and the more completely is he thereby at the mercy of the teleologist, who can always defy him to prove that this primordial molecular arrangement was not *intended* to evolve the phenomena of the universe.

This compels us to suppose that the existing collocations of matter are the results of other collocations of matter antecedent to all the laws of motion. In other words, the present condition of the universe is simply the consequence of that original condition of its parts upon which the mechanical laws first came into play. But that is the same as saying that, if there be an order and harmony now recognizable, it must be due to an original order and harmony impressed upon the system by some agent external because anterior to it. Mr. H. Spencer, by one of his frequent inconsistencies, recognizes implicitly this truth. When he comes to describe the so-called "homogeneous," which, as I have said, is the starting-point of his hypothesis of evolution, he is compelled to assume that it is diffused matter, endowed with all its present properties and moving slowly through an ethereal medium.

I have just said, "if there be an order and harmony now recognizable;" but I need scarcely have stated the point hypothetically. There is of course a *consensus* among theists that the evidences of design and adaptation are stronger now than ever before, but we can fortunately appeal to witnesses who cannot be suspected of partiality. In the first place, biologists are compelled to assume an end, object, and design in organic nature, even when, like Haeckel, they deny it. Still more remarkable is it to find a considerable number of thinkers assert the presence of an intelligence in all Nature, although they do not admit that it exists independently of the universe. Schopenhauer's connection with natural science was so slight as to make him hardly worth quoting, but he led the way to this doctrine of an "immanent" intelligence in Nature. Hartmann is a Manichæan pantheist, believing in the existence of two immanent principles—one good and one evil—in the universe. Theism, therefore, does not warp his mind; yet no Bridgewater treatise contains more numerous or more detailed examples of design than does his "Philosophy of the Unconscious." He is, in particular, careful to point out that Darwin's system is essentially teleological. The same has been done by a much more powerful thinker than Hartmann—the physiologist and philosopher, Wundt, also, unfortunately, not a believer in God. He points out that not merely are Darwin's laws purely teleological in character, but that the teleological method of studying vital phenomena is advancing in every department of biology. So persuaded is he of this, that he "completely inverts the view ordinarily taken of the relations between body and mind. The psychical life is not a product of the bodily organism, but the bodily organism is a psychical creation in all that, by its purposive power of self-regulation, gives it precedence over complex inorganic bodies."

I need not therefore insist longer upon the existence of

purpose, design, and adaptation in the world. I am rather concerned to point out again that the mechanical conception of the universe—the universality and uniformity of the laws of motion—compels us to suppose that these characters were impressed upon Nature from its very commencement, and therefore by an agent anterior to it. The hypothesis of an intelligence forming an integral part of the universe fails, and must be replaced by that of an intelligent Being who transcends creation. It may indeed be objected, with Kant, that we have no proof that the first cause and mover of the universe is also its designer; that the lines of argument run up in different directions and point to different beings. There is probably a basis of truth in this objection, inasmuch as the two arguments lead to different *appropriata personalia*, just as the psychological proof points to a third. But it may be replied, in the first place, that we are not justified in supposing the existence of two supra-mundane beings when one will suffice—“*entia non sunt multiplicanda præter necessitatem*.” Moreover, any independent action, either of the first motor or of the ordering intelligence, would so limit the other process as to make it an inadequate explanation of the phenomena for which we have to account. The two must have proceeded in perfect combination from the very beginning, for the result to be a cosmos such as we see it, and not a chaos.

The argument from design is so immeasurably the most popular one; it is so capable of abundant and interesting illustration, that some self-denial is needed to abstain from developing it more fully.* If I were to do so now, I should, however, be going beyond my present purpose, which is not to present in detail the arguments for the existence of God, but to point out what I conceive to be the shape in which they should at present be stated. In this connection I shall perhaps be pardoned for repeating that the argument for design is greatly strengthened by the wide acceptance of the doctrine of evolution. I have already remarked that Hartmann and Wundt recognize its teleological bearings, which are (so far as I know) only disputed by Lange. It has been lately pointed out in the *Quarterly Review*, that even such a prejudiced agnostic as Haeckel is obliged to use language implying design when he writes as a naturalist. Besides these unsuspected witnesses, the Duke of Argyll has supplied ample evidence of the teleological character of Darwin's theory in his “Reign of Law” and “Unity of Nature.” I can here only mention two very acute remarks made by Dr. Temple in his recently-published “Bampton Lectures.” The first is, that Paley's familiar argument is immeasurably

* I hope, however, to treat the argument at length in a future paper.

strengthened thereby. We have now to account, not merely for the existence of an ordinary watch, but of a watch which should be capable of producing other watches of gradually increasing perfection. The second remark is, that the old argument from design did not exclude the possibility of a multitude of designers, but that evolution necessarily points to a single intelligence.

I have throughout the teleological argument been dealing with evolution merely as an hypothesis, and arguing "*ad hominem*," without inquiring into the precise sense in which it is true. I cannot but regret, with Mr. Sully,* that this one word should be used for such different hypotheses as the unfolding of existence due only to its own inherent necessity, and the development of a plan and order impressed upon the universe by an intelligence. I have argued that the former hypothesis is untenable, and must be abandoned for the latter. As the word "evolution" has obtained such an unfortunate connotation, it would be better to apply the term "development" to the unfolding of a design in Nature, and call those who advocate it "developmentalists," not "evolutionists." It would be traveling beyond my present task to determine the limits of such development; this is, I suppose, the only point that can be doubted, for that development, to some extent or other, does take place, no one can question.

It may be thought from what I have said that the evidences of design are drawn exclusively from organic nature. This is by no means the case, though it is true they are more obvious where the internal ends † of such design are before us in the preservation and multiplication of organized beings. But my argument applies equally to what we call inorganic Nature. The progress of physical science has made it increasingly manifest that the phenomena of non-living bodies must be traced to an inconceivable complexity and yet stability in the ultimate atoms of matter. Chemistry demands that the atoms of each element should be endowed with numerous properties, be all alike in these properties, and unchangeable—that is, as Sir J. Herschel remarks, "bear the stamp of manufactured articles." Professor Clifford indeed objected our very partial and uncertain knowledge of chemistry to this argument for design. But he thereby missed the point of the reasoning, which is not dependent on this or

* "Encyc. Britannica," art. Evolution.

† Aristotle (p. 1075, a. 11) pointed out that the external and internal ends (*κεχωρισμένον* and *καθ' αὐτό*) of the universe and its parts were quite distinct, illustrating this by the example of an army: "*Totus enim ordo universi est propter primum moventem: ut, scilicet, explicetur in universo ordinato id quod est in intellectu et voluntate primi agentis*" (St. Thomas, xii., "Metaph.," lect. 12).

that chemical theory. It is simply a particular case of what I have said before—that actual order and harmony (without which the universe would be a chaos, not a cosmos) is due to order and harmony impressed upon the system in the very beginning. The same is to be recognized in Laplace. When trying his hand at philosophy, he rejected the doctrine of final causes; but when he speaks as an astronomer, he takes into account the “intelligence suprême,” which must have so disposed matter as to produce the solar and stellar systems.

The application of teleological principles has been as fruitful a source of discovery in the realm of inorganic nature as in biology. The law of parcimony was Copernicus’ guide in the revolution he effected in astronomy, and has frequently been invoked by astronomers since; the law of stability, employed by Laplace, is also purely teleological.

It is remarkable that the ancient philosophers argued for the intelligence that presides over the universe from the fact that art imitates Nature; and the argument is of course perfectly valid.* But the instances of it are few and unimportant indeed, compared with those of the reverse process. The triumphs of modern science have been obtained by considering the universe as if it had been a work of human art, and applying to its study the laws which govern human intelligence. The law of parcimony (“*natura iter brevissimum instituit*”), the law of continuity (“*natura non facit saltus*”), and the like, are so many instances of this.

They may be all reduced to the general rule that the laws of Nature must be considered as an unity established by an intelligence. And in giving such laws this intelligence must be supposed to have had regard to our cognitive faculties, and to have made possible a system of experience which is founded on the laws of Nature.†

One serious difficulty yet remains. The practical value of these arguments for the existence of God is much lessened by the contention, that we can have no knowledge of a Being so infinitely our superior beyond the bare fact of His existence. The strength of this objection is derived from our utter inadequacy to comprehend the Divine nature.

Dangerous it were for the feeble brain of man to wade far into the doings of the Most High; whom, although to know be life, and joy to

* “*Ideo res naturales imitabiles sunt per artem, quia ab aliquo principio intellectivo tota natura ordinatur ad finem suum: ut sic opus naturæ videatur opus intelligentiæ, dum per determinata media ad certos fines procedit, quod etiam in operando ars imitatur.*” (S. Thomas, ii., “Phys.” 4.)

† Kant, “*Kritik d. Urtheilskr. Einleitung*,” 4, 5.

make mention of his name, yet our soundest knowledge is to know that we know him not as indeed he is, neither can know him; and our safest eloquence concerning him is our silence, when we confess without confession that his glory is inexplicable, his greatness above our capacity and reach. He is above, and we upon earth; therefore it behoveth our words to be wary and few.

It would be impossible at the end of an article to enter upon the consideration of such a difficult subject, and I can therefore only remark upon its connection with what I have already said. It will be plain that the arguments which I have endeavoured to state would be entirely invalid unless the ideas of truth, power, and intelligence were used in the same sense in the conclusion as they were in the premises; or the syllogisms would be vitiated by the ambiguity of their middle terms. Either, therefore, the arguments prove nothing at all, or they prove that the divinity is powerful and intelligent in a real sense of those words. Even Kant can admit the force of this:

If I say we are obliged to look upon the world *as if* it were the work of the highest understanding and will, I only say that, just as a watch, a ship, a regiment, are related to the watchmaker, the ship-builder, the general, so is this sensible world related to the unknown being. I say it is unknown, for I only know it, not as it is in itself, but in its relation to me—that is, to the world of which I am part.*

It would seem that any one who can go so far cannot refuse to go into details, and to admit that we have a real knowledge of the divinity. As to the application of the argument from analogy (the point which has been chiefly debated) it is worth remarking that the greatest English metaphysician adopted the teaching and even the language of St. Thomas and Suarez.† Much of the difficulty which men experience in this manner is due to their being unable to realize that not man, but God, is the intellectual centre of the universe: that the human reason and will are but copies of a Divine original, and owe their power of knowing Him, however imperfectly, to their likeness to the Divinity. This seems to me the most satisfactory point in the neo-Kantian English philosophy: with much that is incomplete and inconsistent, such writers as the late Professor T. H. Green have done good service indeed by pointing out the priority of the eternal consciousness, which must have preceded our own to make our knowledge of the universe possible.

Much will always remain dark and obscure to us, partly because our feeble mental vision is dazzled when we gaze upon the source of light; partly because words lag behind thought and cumber it,

* "Prolegomena," 57.

† Berkeley, "Fourth Dialogue," sects. 20, 21.

when we turn to unwonted subjects. ("O quanto è corto 'l dire, e come fioco, al mio concetto!") Yet we cannot complain of any failure of reason, for indeed she has done us the highest service of which she is capable when we have learned from her that we have a Divine Author and Creator, whose offspring and likeness we are. This is an ample basis and justification for our reverence and fear and love; beyond this point reason passes into faith. But, compared with what we know lies beyond our ken, how little have we learned of the Godhead!

Quis est iste tam communis in vocibus, tam longe in rebus? Quomodo, quem nostris loquimur verbis, in sua reconditus majestate, nostris penitus et aspectus effugit, et affectus? Dicimur amare, et Deus; dicimur nosse, et Deus; et multa in hunc modum. Sed Deus amat ut caritas, novit ut veritas, sedet ut æquitas, dominatur ut majestas, regit ut principium, tuetur ut salus, operatur ut virtus, revelat ut lux, assistit ut pietas.

J. R. GASQUET.

ART. V.—"THE HOLY FACE."

VERONICA—derived from *Vera-icon*; according to St. Gregory of Tours, *Vera-iconica* (true image)—is the representation of the Venerable Face of Our Lord, commonly known as the "Vultus Sanctus," "Sancta Veronica," or "Holy Face," impressed on a veil of soft woollen texture, guarded with the utmost veneration as one of the three Great Relics of the Patriarchal Vatican Basilica in Rome, within an oratory or niche formed in the interior of one of the four immense pilasters upholding the majestic dome of the Church of St. Peter. The corner-stone of the foundation of this oratory, which bears the name of the Chapel of St. Veronica, *a cornu epistolæ*, of the Papal Altar of the Basilica, with a balcony for the exhibition of the sacred treasures, was laid by Julius II., April 18, 1506; the "Holy Face" placed therein by Paul V., April 18, 1606; and the Lance, with a portion of the True Cross, by Urban VIII., in 1629. The exterior of the Loggia, or balcony, is ornamented with bas-reliefs showing angels displaying the Vultus Sanctus; while beneath, in an appropriate recess, is a colossal statue, sixteen feet high, in white marble, with pedestal, representing St. Veronica holding to view the Sudarium, by the Florentine sculptor Francisco Mochi, seventeenth century, in the rather exaggerated style of the time. Behind this statue, to the right side of the pedestal, a bronze door opens on a winding staircase, giving entrance to the Grotte Vaticane, or Crypt of St. Peter;

and at the eighth step another small metal door closes the secret interior stairs leading to the upper oratory, where the relics are kept.

In the crypt, directly under the pilaster, is the subterranean Chapel of St. Veronica, which receives its light from two grated openings in the pedestal of the statue itself, and reproduces the altar and ciborium erected for the "Volto Santo" by Pope John VII., in the chapel built by him in 705 in honour of Our Lady, under the title of "S. Maria Prægnantium." The altar-piece represents St. Veronica handing the veil to the Redeemer, whilst around and above are frescoes of Our Lady and the Three Maries, two on either side; of Urban VIII. receiving from Bernino the plan of the four chapels of St. Veronica, St. Longinus, St. Andrew, and St. Helena, corresponding to the four pilasters, and to which the Pope assigned each a chaplain employé of the Barberini Library; of Boniface VIII., showing the Volto Santo to Charles II., King of Sicily, and to James II., King of Aragon, 1296; and of the exhibition of it before the Emperor Frederic III., by order of Pope Nicholas V. On the walls of the corridor leading to the Confession of the Apostles, are frescoes representing Veronica handing the veil to the Saviour, standing between the two sisters Martha and Magdalen; Veronica preparing to bear the Sudarium to Rome, in company of Mary of James, Mary Salome, Mary the Virgin, and Mary of Cleophas. The vault shows Veronica displaying the Sudarium to the people, John VIII. bearing the ciborium, built by him for the custody of the sacred relic; and the Volto Santo shown to Louis I., King of Hungary, by command of Clement VI.

The legends of St. Veronica tell us that she was a noble Jewess, Seraphia by name, of sacerdotal race, daughter of a brother of Zachary of Hebron; consequently cousin to St. John Baptist. She was five years older than the Blessed Virgin, with whom she had been raised among the Maidens of the Temple, had formed with her a close friendship, and was present at her espousals with St. Joseph. She was also related to the aged Simeon, and had shared his eager longings for the advent of the Messiah. When Jesus, at twelve years of age, remained behind in the Temple amid the doctors, Seraphia gave him hospitality and nourishment in a house situated near the Bethlehem gate, a quarter of a league from Jerusalem, where he remained when not within the Temple limits, and where Mary, soon after his birth, coming to present him in the Temple, passed two nights and a day with the then proprietors, two aged Eisenians, friends of the Holy Family. This house was a pious foundation for indigent travellers, and Jesus and his disciples frequently lodged there, especially during the days immediately preceding the Passion. Seraphia, whom Catherine Emmerich

describes as somewhat resembling in appearance St. Catherine of Siena, and of generous, resolute, and daring character, married late in life, some say at thirty years of age, a descendant of the chaste Susanna, a member of the Sanhedrim of Jerusalem, by name Sirach, who at first was very inimical to Jesus, thereby causing his wife much suffering by reason of her attachment to the Saviour, was by his colleagues, Joseph of Arimathea and Nicodemus, brought to a better way of thinking, and permitted Seraphia to follow the Messias. In fact, after the judgment before Caiaphas, Sirach openly declared himself a disciple of Jesus, and with Joseph of Arimathea and Nicodemus separated himself from the Sanhedrim. Their son Amadon, was among the first martyrs in Jerusalem. We find Seraphia, with the other holy women, in the train of Jesus through all his apostolic wanderings, witness to his miracles at Aïnon, at Azanoth, at Dothan, and at Jezarael, travelling and halting with him, sometimes at Caphernaum, sometimes at Hebron; and while Martha provided for the requirements of Jesus and his apostles, Seraphia busied herself more especially with the needs of the holy women. At the marriage of Cana in Galilee she brings from Jerusalem a basket filled with rare flowers and delicate pastry; she took great interest in Mary of Magdala, with whose family she was intimate, and was instrumental in procuring the conversion of that model of all penitents, frequently visiting her with that object, and urging her to turn from her evil ways. After the martyrdom of St. John Baptist, Seraphia, with Joanna of Chiusa, repaired to Macheronta to secure the head of the Holy Precursor, which had been thrown into a sewer by order of Herodias; she was, with Jesus and Lazarus, one of the guests in the house of John Mark; and in the triumphant entry of Jesus into Jerusalem on Palm Sunday she collected garments to spread in his way, and extended beneath his feet the veil she then wore, the same later destined to wipe the face of her Divine Master in his sorrowful road to Calvary, and to bestow upon its owner her new name of Veronica; and she deposed in his favour before Pilate, with the irrefragable testimony of his miracles on Lazarus, Simon the leper, Jairus the demoniac, the blind Bartimeus, and others. St. Methodius, Bishop of Tyre in the third century, celebrated for his holiness and learning, epitomized the Life of St. Veronica. In the Gospel of Nicodemus she appears at the moment when the Jews shout loudly for the death of Jesus; Pilate, in order to save him, calls for witnesses in his defence, urging them to come forward and speak. Thereupon, says the writer, "a woman named Veronica cried out from afar, 'I touched the border of his garment, and was instantly healed of a bloody flux which had lasted twelve years.'" It is true the

Gospel of Nicodemus is apocryphal, and considered by many the same with the Acts of Pilate, cited by Justin Martyr, by Tertullian, and by Eusebius;* but whilst excluding said books from the Canon of Holy Writ, the Church, it is well known, does not deny them all historic value. Whatever their authenticity, their antiquity is incontestable, some of them being even preserved in the Liturgy of the Oriental Church. Many authors have not scrupled to accept from this source the history and the name of Veronica, and to pronounce her the woman cured of a bloody flux by contact with the garment of the Saviour, and who received from him, at the time of the Passion, an impression of his holy face upon a napkin. The "*Florarium manuscriptum Sanctorum*," and other writers, treating of the prodigy of the *Volto Santo*, refers to this cure as a prior bond of gratitude and of devotion between the Redeemer and His pious servant, which conjecture is supported by a still higher authority, namely, a Mass common to three very ancient Missals, the Ambrosian, that of the Church of Jaen in Spain, and that of the Church of Aosta. In the prayer they invoke St. Veronica, who wipes the face of our Lord; the Prose adores that Divine Image, whilst the Gospel given is that of the cure of the hæmorrhagic woman. (*Acta*, ss. iv. Feb.) Eusebius, in his *Eclesiastical History*, holds this woman to have been a Syrophœnician, not a Jewess, and a dweller, not in Jerusalem, but at Cæsarea Philippi, or Paneas (the modern Banias), where her house in the city, he writes, is still shown, "at the gates whereof, on an elevated stone, stands a brazen image of a woman on her bended knee, with her hands stretched out before her, like one entreating. Opposite to this is another image of a man, erect, also in bronze, decently clad in a mantle, holding forth his hand to the woman. Before her feet, and on the same pedestal, there is a certain strange plant growing, which, rising as high as the hem of the brazen garment, is a species of antidote to all kinds of diseases. This statue is, they say, a statue of Jesus Christ curing the woman with the issue of blood, mentioned by the Evangelists, and it has remained even until our times (A.D. 328); so that we ourselves saw it whilst tarrying in that city." Philostorgius and Sozomen declare this statue to have been thrown down by command of Julian the Apostate, who erected one of himself in its stead; but fire from heaven was poured down upon the latter, the head and breast were broken, and it was transfixed to the ground with the face downwards. "It

* The learned Fabricius conjectures that the Anglo-Saxons bestowed upon this document the title of "Gospel of Nicodemus," because the Nicodemus therein named was their patron. It was printed in their language, and read by them as a sacred and canonical book. (*Fabric. tom. ii. p. 214.*)

is still to be seen on the spot where it fell, blackened by the effects of the thunder. The statue of Christ was dragged round the city and mutilated by the Pagans, but the Christians recovered the fragments, and deposited the statue in the church, wherein it is still preserved" (A.D. 415). Maury deems the Gospel of Nicodemus the source whence John Malala drew the name "Veronica," since generally given in legend to the hæmorrhagic woman. Piazza, in his "*Emerologio di Roma*," gives under Feb. 4, as the feast of the day: "St. Veronica, Noble Matron of Jerusalem, believed to be the woman cured by Christ of a bloody flux, styled by Baronius, Berenice, the name of Veronica being derived from the *Vultus Sanctus*, impressed upon the veil she had offered Christ to wipe his face from sweat and blood on his way to Calvary." St. Ambrose inclines to the opinion that the woman in question was Martha, sister of St. Mary Magdalen.*

But to return to the legend. After the condemnation by Pilate, when the *cortège*, with Jesus bearing his cross, had reached the middle of the long street leading from the Judicial Gate, or Gate of Ephraim, a tall woman, of imposing aspect, leading a young girl by the hand, came forth from a large house situated to the left, and darted in front of the line of the procession. This was Seraphia, who had prepared a vase of excellent spiced wine, with the pious intent of giving Jesus to drink as He passed on His painful journey. She was closely veiled, and a cloth of fine wool, or flaxen fibre, three times longer than wide, hung from her shoulders; the little girl clung closely to her side, striving to conceal the cup filled with wine. Those preceding Jesus sought to drive away Seraphia, but she forced her way amid the populace and soldiery, reached Jesus, and, in accordance with the Jewish custom to offer the shoulder-cloth above described to friends in affliction, in token of sharing their grief, she fell on her knees, and presented the napkin, saying, "Suffer me to wipe the face of my Lord." Jesus took the cloth, pressed it to his face, streaming with sweat and blood, and returned it with thanks to Seraphia, who, kissing it reverently, hid it beneath her mantle, and rose; the young girl timidly held the vase of wine towards Jesus, but the soldiers would not allow him to drink. This daring and prompt act had created a movement amid the crowd, stopping the procession for some two minutes, thereby permitting Seraphia to present the napkin; once the *cortège* resumed its onward march, she hastily re-entered her house, spread the napkin upon a table, and sunk, fainting, to the

* The supplement to the Synaxari of the Greeks, according to Siamund, gives under July 12, "Memoria S. Veronicæ profluvio sanguinis laborantis, quæ a Christo sanata est."

ground, the little girl kneeling beside her, weeping bitterly. A friend coming in, found her lying senseless, and beheld the open napkin, whereon the bleeding features of Jesus were miraculously impressed. Struck by this sight, he roused her to consciousness, and drew her attention to the Sudarium, before which she kneeled, weeping, and exclaiming, "Now will I quit all, since the Lord has given me so precious a memorial." Our Lady and the holy women, to the number of seventeen, then entered the house of Seraphia, to avoid Pilate and his horsemen, who were filling the street, gazed tearfully on the Face of Jesus imprinted on the Sudarium, rejoiced with her over the grace vouchsafed her, took the vase of spiced wine she had prepared, and, in company with Seraphia, turned their steps towards the Gate of Golgotha. Reaching Calvary, they endeavoured, fruitlessly, to purchase from the archers permission for Jesus, then being despoiled of his garments, to drink the aromatic draught. Seraphia stood amid the group of sorrowing women near the foot of the Cross, aided them in preparing the linen, the water, the spices, the sponges, and other articles required for washing and embalming the body of the Crucified Saviour; assisted in collecting, in phials, the blood and water flowing from the wound in the Sacred Side; followed Joseph, Nicodemus, and the other disciples, bearing the remains to the tomb; accompanied the holy women, early in the third day, to the Sepulchre; and was present at all the apparitions of Jesus to his Apostles, at the Ascension, and at the Descent of the Holy Ghost at Pentecost.

Mrs. Jameson gives two popular legends relative to the possessor of the *Vultus Sanctus*, according to one of which she was Veronica, or Berenice, niece to King Herod, being daughter of his sister Salome, who had been devoted to the pomps and vanities of the world, but was suddenly converted on witnessing the suffering and meekness of the Saviour, who to encourage her faith gave her a napkin whereon He had impressed His features, and which was endowed with miraculous powers. The second legend runs:

Veronica was the woman who had been healed by touching the hem of Christ's garment. She greatly longed for a picture of Him, and therefore brought a cloth to St. Luke, who was a painter. When the picture was finished, both thought it very like, but on next beholding Christ they found His face was quite different. Veronica wept, and Luke painted another picture, and then a third, but both were less like than the first. Then God heard the prayers of Veronica, and Christ said to her, "Unless I come to your help, all Luke's art is vain, for my face is known only to Him who sent me; go home and prepare me a meal; before this day is over I will come to you." Veronica joyfully hastened home and prepared the meal. Soon Christ

arrived, and asked for water to wash. She gave it to Him, and also a cloth to wipe with. He pressed it to His face, and it received a miraculous portrait of His features. "This is like me," He said, "and will do great things," and he gave it to her.

The story of Veronica as related in the legend thus given is that recognized by the Church's tradition, and mentioned in the *Acta Sanctorum*. Chifflet ("De Linteis sepulchralibus Christi," Antwerp, 1624), quoting Salmeron and others, thinks the napkin or veil of Veronica to have been folded in three ere being handed to the Lord. When unfolded the Sacred Features were found impressed upon each of the three divisions. This fact is likewise asserted, we are told, in a very ancient "History of Christ," written in Persian. One of these *Vultus Sancti* is preserved in Jerusalem, one in the Church of Jaen in Spain, and one in Rome, where the presence of the precious portrait is noted by Peter Diaconus, 518.* Gian Gregorio di Gesù e Maria, a learned Augustinian friar, in his "Prætorium of Pilate," Lesson vii., "De Vultu Sancto" (Rome, 1660), thus describes the Veronica or Sudarium: "One beholds in it, with the most tender compunction, the head all pierced with thorns, the forehead bleeding, the eyes swollen and blood-clotted, the face deathly pale; on the right cheek is clearly perceptible the impress of the cruel blow given by the iron-gauntled hand of Malchas, by whom he was buffeted in the house of Annas, whilst the left cheek bears traces of the spittle of the Jews; the nose somewhat crushed and bloody; the mouth open and bespattered with blood; the teeth loosened; the beard plucked out in spots; the hair to one side torn away; and the entire Most Holy Face, even thus distorted as it is, breathing such unearthly majesty, love, compassion, and sadness, as to excite in those who venerate it, when exposed to the Faithful in the Vatican Basilica, sentiments of holy horror, of sorrowful confidence, and, as a visible testimony of the ingratitude of mankind, produces within the heart of the beholder a flood of penitent grief and burning flames of love towards the Redeemer of the world." Referring to the imprint of the gauntlet, Lanspergius, in Hom. xix., "De Passione," writes: "That the face of Christ impressed on the Sudarium bears the marks of fingers stamped thereon, and shows clearly that the blow was inflicted upon Christ the Lord by an iron hand;"† and Pamelius, in his annotations on ch. xiv. of the "Apologetico" of Tertullian,

* "Sudarium, cum quo Christus faciem suam extersit, quod ab aliis Veronicadicitur, tempore Tiberii Cæsaris Romanis delatum est," &c.

† "Quod Christi facies in eodem impressa Sudario digitorum vestigia impressa retineat, et aspicientibus monstrat quod armata manu Christo Domino inflixere."

declares that "the Effigy of Christ, which tradition holds as given by Him on the napkin to Veronica, is still extant in great veneration, and neither its aspect, nor the miracles wrought thereby, permit a doubt relative to its authenticity."

The spot where the action took place was ever held in great veneration, and the memory of Veronica is still green. Bernard of Breydenbach, Dean of Mainz, claims to have (July 14, 1483) traversed the long street through which Christ was led from the palace of Pilate to the place of Crucifixion, and to have passed before the house of Veronica, distant some five hundred and fifty paces from the prætorium of the Roman governor. Andrichomius of Cologne (1580) is still more precise: "The house of Veronica stands on a street corner. From the spot where she met Jesus to the Judiciary Gate, where He fell, for the second time, beneath His Cross, Christ proceeded three hundred and thirty-six paces and eleven feet." Henry Maundrell, writing in 1697, enumerates, amid the places pointed out to him along "the Dolorous Way," "fourthly, the spot where St. Veronica presented to Christ the handkerchief to wipe His bleeding brows;" whilst a more recent traveller, the late Protestant Episcopal Bishop of New York, Dr. Wainwright, visiting the Holy Land in 1849, speaks of

this house of Veronica, or, more correctly, the spot on which stood that house, the very ruins whereof have disappeared, and whereon is now seen the dwelling of a Greek family. You are shown the place where that heroic woman, forcing her way through the soldiers and the crowd which surrounded Jesus, and casting herself at His feet, wiped his distorted features, the impression whereof was left upon the cloth which had touched the August Face of the Saviour of the world. This house of Veronica is about one hundred paces from the Judgment Gate, through which malefactors passed to be executed on Calvary. Behind the gate is the upright stone pillar whereon was posted the sentence of Pilate.

But a seal of authority, far more venerable, lies in the fact that the house of Veronica is numbered by the Church amongst the "Holy Places." A Bull of Pius IV., dated July 14, 1561, "confirms and ratifies the Indulgences set forth on a handsome tablet, preserved near the most holy Sepulchre of the Lord Jesus Christ," which Sixtus V., Benedict XIII., and Gregory XVI., successively recognized and published. In the nomenclature of the Holy Places, to which the indulgences are attached, as appearing on this tablet, reproduced in the Bullarium of the Holy Land, we read: "At the house of St. Veronica, indulgence of seven years and seven quarantines." This Station is preserved in the pious exercise known as the "Way of the Cross."

In the latest and best guide to the Holy Land, by the Franciscan, Fra Lievin de Hamme, long resident in Jerusalem, "the site of the house of Veronica" is noted, with the partial indulgences granted by the Bull, *Unigeniti filii Dei*, of Innocent XI., Jan. 28, 1688, and confirmed by Pius IX., Feb. 22, 1849. Fra Lievin states the house now occupying the ancient site is recognizable by its low door opening on the street, and by a fragment of column incrusting in the pavement. Very Rev. Father Nehâkade, vicar of the Patriarch of the United Greeks in Jerusalem, has purchased, in name of the latter, this house of St. Veronica, the VI. Station of the Via Dolorosa, proposing to erect on this spot a sanctuary in commemoration of the wondrous fact there recalled to mind.

But the napkin miraculously impressed with the features of the suffering Saviour was not to remain private property. It was a relic destined to find its way to the centre of Catholicity. Catherine Emmerich tells us that, "in the third year following the Ascension of Christ, the Roman Emperor Tiberius sent a messenger to Jerusalem to collect information relative to the Death and Resurrection of Jesus. This man, on his return to Rome, was accompanied by Nicodemus, by Veronica or Seraphia, and by the disciple Epaphras, a relation of Joanna of Chusa, who, an ancient employé of the Temple, had witnessed the apparitions of Jesus risen in the Cenaculum and elsewhere. Veronica repaired to the presence of the Emperor, who lay ill, his bed raised on two steps; the chamber was square, not over large, and with no windows, it being lighted from above. Veronica bore with her, not only the Sudarium, but also one of the winding-sheets of Jesus. She displayed the former before the eyes of the Emperor, who was entirely unattended. The Face of Jesus was clearly impressed there, as in His blood, the imprint being larger than a portrait, the cloth having been applied all round the features. I did not behold the Emperor touch the sacred napkins, but he was cured by the mere sight of them." Philip of Bergamo gives a similar account, making the name of the messenger to be Volusianus; as also does the "Florarium Sanctorum," and the Ambrosian Breviary, in Lesson iii. of the Office of St. Veronica, Feb. 4.

Not only is mention made of Veronica and of Volusianus in all the Canonical Hours, but even in the Mass of the day, which has a proper Preface, with the name of Volusianus. Two very ancient books, written, one in the time of Alexander III. (1160), preserved in the Vatican Library, relates that Volusianus, the friend of Tiberius, and sent by him to Jerusalem, had brought thence Veronica, with the Sudarium. Marianus Scotus gives a similar account, after the relation of St. Methodus, martyr.

Molanus, in 1350, speaks of having seen in the Vatican Library a history of the translation of the Vultus Sanctus, under Tiberius, in elegant style and very ancient characters, which the celebrated English theologian, Stapleton, claims to have read in its entirety. The existence of this precious MS. is further confirmed by Baronius. Lady Eastlake also cites a collection of pen-drawings and woodcuts of the fourteenth century, in the Ambrosian Library at Milan, representing the story of this translation.

Many authors doubt the existence of St. Veronica of Jerusalem, deeming "Veronica" to be the title applied to the Holy Face itself, not the name of any holy woman, and adduce in support of their opinion that the Roman Martyrology registers no such person in its calendar; that in the time of Innocent III., pewter medals, struck with the Holy Face and the Keys of St. Peter, were sold to pilgrims visiting the "Limina Apostolorum," who fastened them to their hats and clothes, by certain traffickers styled "Vendentes Veronicas;" hence "Veronica" would seem simply medals with the impress of the Holy Face. The proceeds of their sale were by Innocent III. granted to the Vatican Chapter. The third reason put forth is that in the ancient Missals of some German dioceses, especially in that of the Cathedral of Augsburg (edition of 1555), the rubric reads: "Missa de Vultu Sancto, seu Veronica;" consequently Veronica signifies the Holy Face. Jacopus Gretser, S.J., in his "Syntagma de Imaginibus non Manufactis," notes the custom in Germany of painting upon the back of the high altar in the churches, the pictures of the Veronica, which the faithful were wont devoutly to approach, make upon it the sign of the Cross, and repeat the same on their own foreheads. Nevertheless, her history, the cultus observed towards her, and for the Vultus Sanctus, rest upon ancient, continued, and well-authenticated tradition; the Bollandists, who treat of her in March, after weighing all the evidence for and against, conclude that the fact of the Sudarium given to Veronica is beyond question by orthodox Christians, and it is the unanimous opinion of all writers that St. Veronica bore that image to Rome. Benedict XIV., who like Urban VIII. held the "Holy Face" in great veneration, declares: "Be Veronica the name of a woman or of the relic itself, certain it is that said relic has been for many centuries in high honour within the Vatican Basilica;" and the learned Dom Mabillon lays down as a safe rule, that when tradition is immemorial and identity established, the cultus has a solid title to possession, which cannot be destroyed save by certain and evident proofs; that the presumption is in favour of relics, since as the ancient canons prescribe, they cannot be

exposed to public veneration before being duly examined; that consequently equity demands judgment in their favour, unless there exist good and precise, not vague and general, reasons to doubt their authenticity. The silence of the Roman Martyrology is no argument, since each lesson of that volume terminates with the words:—"And elsewhere, many other holy martyrs, confessors, and holy virgins." In some cases the same Martyrology omits even patron saints, of whom Baronius and other annalists treat in their works. Finally, it is possible that the "Holy Face," being generally portrayed depending from the hand of St. Veronica, the latter name may have been applied equally to the bearer and to the burden.

Whatever the fact, tradition holds that Veronica—in Greek Beronice—then of mature age, came to Rome 14 A.D., halting on her way thither at the island of Zante, where she planted the faith of Christ, and left a memcry in benediction amid the inhabitants, whose descendants to this day venerate her as the foundress of the Christian religion in their island. The popular legend runs, that she remained in Rome until her death, shortly after the martyrdom of St. Peter, and found burial within that city, 69 A.D. The Martyrology of Peter Galesinus notices her: "*Romæ St. Veronicæ, quæ vultum Domini ad eam Urbem Hierosolyma attulit;*" though some think she breathed her last 93 A.D., under the pontificate of St. Clement I., to whom she bequeathed the precious handkerchief, enclosed within two cedar-wood coffers, for better security. It was at first guarded with great honour in the Church of St. Maria *ad Martyres*, the ancient Pantheon, that temple being both spacious and central, whilst the Vatican Basilica was without the circuit of the walls of Rome until 848, when Leo IV. included it in the Leonine City. It was venerated in that church from the time of Boniface IV., 610, and publicly exposed on the High Altar, on the anniversary of the dedication of the said Church, May 13, and also whenever any peril threatened the Eternal City. At other times it was carefully secured in a shrine furnished with thirteen locks, the keys whereof were entrusted to the custody of the respective chiefs of the thirteen ancient *Rioni*, or wards of Rome; the shrine itself being deposited in the Chapel of the Crucifix, to the left of the High Altar, in which chapel is still preserved, in our own day, one of the worm-eaten coffers in which the precious relic was brought from Jerusalem by St. Veronica. It is placed in a niche above the altar-slab, within a crystal urn, bearing the inscription: "*Area in qua sacrum Sudarium olim a diva Veronica delatum Romam ex Palestina Hac in Basilica anni centum emituit.*" The urn is surmounted by a figure of the crucifix, enclosed in glass, whence the title of the chapel. The remains of the

coffer bear traces of ten locks; the other, and from all appearances the internal coffer, that more closely in contact with the venerable relic itself, is yet to be seen in the little church of S. Elizio *dei Ferrari*, and is inscribed: "In ista Cassa fuit portatum Sudarium Passionis Domini Nostri Jesu Christi a Hierosolymis Tyberio Augusto." It is ornamented with enamelling of the thirteenth century. In 705, John VII. transported the "Vultus Sanctus" to the chapel he had prepared for it in the Vatican Basilica.

Cancellieri relates that subsequently—but he does not give the precise date—this precious relic was removed to the church attached to the Hospital of Santo Spirito, quoting to that effect an ancient MS. chronicle, where it was jealously guarded by six noble Roman families—Capo di Ferro, de Tartari, de Ricei, de Mercanti, de Tossetti, and Stefaneschi—with which families the charge was hereditary.

The Sudarium [says the chronicle aforesaid] is preserved within a little room, lined throughout with marble and with iron, secured also with six locks, and exposed only once annually; and the six gentlemen, custodians of the keys, were freed from any legal condemnation they might have incurred, were never summoned to camp or military duty, and were one of their number elected maresciallo (sheriff), he was exempted from ever presiding at an execution. Wherever the Sudarium was exhibited to public veneration, each custodian was obliged to appear with twenty companions, armed at all points, mount guard with drawn swords round the relic, escort it to its repository, and secure the lock, of which he held the key in charge. Amid the privileges attached to their office was that of receiving, yearly, from the Hospital of S. Spirito, on the Feast of Pentecost, "in die S. Spirito," two cows, the flesh of which they ate there with great rejoicings.

Piazza, Severano, and other writers, citing the Regesta of Honorius III., an. vii. (1223), state that this Vultus Sanctus was annually borne processionally from the Basilica of St. Peter to the Church of Santo Spirito, with the intervention of the Pope and of the entire Sacred College, when His Holiness pronounced a discourse to the people, and the hospital gave an alms of three denarii each to one thousand poor foreigners and to three hundred of the patients in the hospital itself, one denarius of which was for bread, one for wine, and one for meat. The canons, who bore this sacred relic, received each twelve coins known as *quattrini* (farthings), and a candle of one pound in weight. This outlay was met from the offerings made at the altar of St. Peter collected by the Mansionarii.

In 1471, Sixtus IV., for just cause, inhibited the procession to Santo Spirito, establishing in lieu thereof the present usage

observed by the members of the Arch-Confraternity of San Pietro in *Sassia*, founded in 1198, who succeeded the original six noblemen as custodians of the sacred relic, of repairing in procession, on the second Sunday after Epiphany and on the Monday after Pentecost, to the Vatican Basilica, when, by special privilege, exposition is made to them of the *Vultus Sanctus* and the other great relics. Rinaldi relates that when Louis V. of Bavaria came to Rome, followed by a swarm of heretics, schismatics, and prostitutes, and the city was placed under an interdict, a Canon of St. Peter, guardian of the sacred relic, concealed it from the profanations of the invaders. An ancient diary states that, "Oct. 4, 1409, the Sudarium of Veronica was transferred from the sacristy of St. Peter to Castel St. Angelo, lest it be exposed to insult or injury from the troops of Ladislaus, King of Naples." The same diarist tells how it was brought back to St. Peter on the 1st January, 1410, from which date it has never been removed save during the enlargement of the Basilica under Paul V., in 1606.

Not only the Romans but Christians everywhere have ever professed great devotion to this precious relic of the "Holy Face," and history tells us that crowds thronged the Basilica of St. Peter whenever it was exposed to public veneration. The exposition took place at stated times with much pomp, and save at those times was shown to no one without an express order from the Pope. This permission was granted only to crowned heads or to special friends of the Holy See. The custody of the sacred relic was exclusively the privilege of the Canons of St. Peter's, who took a solemn oath to guard it with zealous care. Even when kings were admitted to venerate the relic they had first to be aggregated to the Canon of St. Peter's, and were obliged to wear the canonical robes whilst paying their devotions before it. The precise date of the first public veneration is not known. Perhaps the earliest token of such public worship is a ceremonial or ordinal drawn up by a Canon of St. Peter's in 1143. Mallins, in his history of the Vatican Basilica, dedicated to Alexander III. in 1159, speaks of the ten lamps which burned before the Veronica day and night. Pope Celestine III., in 1193, showed it to Philip Augustus of France, and there are numerous records of Popes permitting its special exposition for behoof of royal visitors. The procession to St. Spirito, with its accompanying dole to the poor, ceased when the Popes removed to Avignon, and was never renewed on their return to Rome. From Avignon, however, the Popes watched over this devotion of their special affection. We learn from two Vatican codices (Nos. 3769, 3779), that John XXII. composed, in honour of it, the rhythm "*Salve Sancta Facies*," the recitation of which he indulgenced;

and that Innocent VI. composed the shorter "Ave Facies præclara," with versicles and prayer. Clement VI., during the jubilee of 1350, directed from Avignon the public exposition of the relic in the Vatican Basilica. Matthew of Westminster, in his "Flowers of History," ad. 1216, writes :

Whilst Pope Innocent III. was celebrating a solemn procession at Rome, and when that image of the Lord's countenance which is called the Veronica had been borne along reverently, to be gazed upon by the people, the Pope himself replaced it in his accustomed place ; but on the morrow it was found turned round, standing in an improper manner, in such a way that the face was bent downwards, and the beard turned down to the ground. And when the Lord Pope heard this, he greatly feared that it was an evil omen, and accordingly he composed a collect, and appointed it to be said in honour of the Veronica ; and he granted to all who should repeat it a pardon for ten days.

To enumerate all that the popes have done in ancient times to mark their high appreciation of this great relic would be most interesting, but lead us beyond all limits, as would any attempt to detail all the royal and other high personages of every kingdom who from time to time have gladly gone through all the formalities demanded of them for the privilege of being permitted to approach and venerate the "Volto Santo." Some authors hold that from the time of Charlemagne all the emperors upon being crowned by the Pope in person were created Canon of St. Peter and admitted in their canonical robes to venerate the relic.

The Vatican archives still preserve a contract of lease, drawn up in the sixth year of the pontificate of Benedict VIII. (1017), subscribed as witness by "Johannes un Clerico et Mansionarius Sanctæ Mariæ in Veronica," which document, thus making mention of the Sudarium of Veronica and of its altar, and which dates from the beginning of the eighth century, refutes the assertions of Baillet, Serry, and similar scoffers, that the name of Veronica is an invention of the thirteenth century. A further proof in point we learn from Garampi, Fiocaranti, Scilla, Vettori, and other authorities on pontifical money, that besides the blessed medals known as "Veronicas," even in the time of Innocent III., many of the Popes struck coins bearing the effigy of the Vultus Sanctus, which were styled "Signa S. Veronicæ." Chaucer, in his "Canterbury Tales," dating from 1390, alluding to the custom observed by pilgrims returning from their journeys to foreign shrines, to bring with them certain tokens of the several places which they had visited, represents the Pardoner, who is just arrived from Rome, as showing

A vernicle sewed upon his cappe ;

"vernicle," being the diminutive of "Veronike," is, according to Du Cange, a copy in miniature of the miraculous picture. Madox, in his "*Formulare Anglicanum*," quotes the will of one John de Nevill, 1386, bequeathing to his brother, the Archbishop of York, a red velvet vestment, having the "Veronike" broidered thereon. Dante tells us in his "*Paradise*" of the wight,

Who haply from Croatia wends to see
Our Veronica; and the while 'tis shown
Hangs o'er it with never-sated gaze,
And all that he hath heard revolving, saith
Unto himself in thought: "And didst thou look
E'en thus O Jesus, my true Lord and God?
And was this semblance thine?" (*Canto xxxi.*)

The poet styles it "our Veronica," because it was preserved in Rome; and in his "*Vita Nuova*" (page 275) he speaks of the "many people who were going to see that blessed image, which Jesus Christ left to us for a pattern of his most beautiful form." Petrarch (in *Ep. ix. lib. ii.*) alludes to it as "*verendam populis Salvatoris Imaginem*."

The public exposition of the three sacred relics is made twelve times annually, as also during the holy year, and likewise when Rome is visited by pestilence, earthquakes, war, or inundation of the Tiber, as also on occasions of extraordinary jubilees and penitential processions. The Veronica is reported to give visible warning of coming trial to the Church; and during the Republican domination in 1849, about Easter, the canons of St. Peter perceived the Holy Face turn pale, and ominously change colour as they gazed upon it. The late Cardinal Barnabo, at that time member of the Vatican Chapter, frequently assured the writer that he had himself been an eye-witness of this fact. Pius IX., of blessed memory, besides the Encyclical, "*Apostolicæ nostræ caritatis sollicitudine*," of August 1, 1854, wherein he urged the Catholic hierarchy to fervent prayer, preparatory to the coming definition of the dogma of the Immaculate Conception, further ordained that on the first Sunday of Advent, December 3, of that same year, the Great Relics of the *Vultus Sanctus*, the Holy Lance, and the True Cross should be brought from their chapel, and placed beneath a baldachin, on the Altar of the Blessed Sacrament in the Vatican Basilica, and remain exposed thereon until the Thursday following, December 7, in order that they might be closely inspected and venerated by the numerous bishops come to Rome to be present at the definition, many of whom celebrated Mass at the altar. There is no previous example of the said relics having been ever exposed upon any altar of that Basilica. Mgr. Barbier de Montault, in vol. xxiii. of the "*Annales Archéologiques*," thus describes his visit:—

The celebrated relic of the Veronica was exposed upon the Altar of the Blessed Sacrament, between the Holy Lance and the Wood of the Holy Cross. The Holy Face is enshrined within a frame of silver gilt, square in shape, plain, and with slight ornamentation. This simplicity of surrounding brings out in greater relief the picture itself, protected by a plate of thick crystal. Unfortunately, in homage to a wide-spread Italian usage, a sheet of metal covers the interior, concealing all but the face, of which it traces the outlines. From the latter we argue long hair, falling over the shoulders, and a short beard, parted in two thin locks. The remaining features are so vaguely delineated, or rather so completely effaced, that it required all my force of will and imagination to discern any trace of the eyes and of the nose. This indistinctness is still further augmented, thanks to a wide-ringed network placed over it, to hinder the linen from falling to pieces. In short, the material is entirely hidden by the useless metal covering, and the impress of the face presents but a blackened surface, giving no idea of a human face.

Consequently the pictures, authenticated as having been touched to the original Veronica, which are distributed in Rome, are rather indications than copies of the true relic, whereon the features are much obliterated, whereas the engravings present a very clearly delineated face of our Lord. The scoffer Hemans, in his "Catholic Italy," claims also himself (in December, 1854) to have closely examined the Vultus Sanctus, which he pronounces undoubtedly a work of early Byzantine art, possibly of the seventh or eighth century, painted on linen, with that expression of gloomy severity common to the heads of saints in ancient Greek pictures. If we may judge from the engraving given by Rohault de Fleury,* reproduced from a photograph furnished by the Bishop of Jaen in Spain, the Veronica venerated in that city, said by tradition to be one of the three folds of the original veil, is in a much better state of preservation, and clearer as to features and outline. Lady Eastlake mentions a picture of Christ, dark as a Moor, from Canticles ("I am black but comely"), as sometimes seen on a Veronica cloth; but it appears strictly of modern origin, and probably taken from the much-darkened Byzantine representations, since no tradition exists of a black face as associated with Christ. Emerich David, who has examined all the Veronicæ from an artistic point of view, pronounces the Sudarium of the Vatican Basilica that whereon the face of Christ wears the air of greatest dignity. Raoul Rochette, who rather questions its divine origin, avows it to date at least from the sixth century.

Besides the Veronica of Jaen in Spain, and the third original said to be preserved in Jerusalem, there exists a true copy of

* "Instrum. de la Passion," p. 249.

that of St. Peter in the Cistercian Abbey of Montreuil-les-Dames, in Thierache, diocese of Laon, sent to them in 1249 by Jacques Pantaleon, chaplain to Pope Innocent IV. (archdeacon of Laon, afterwards of Liège), and later, Pope Urban IV. (1261-1264), whose sister was a member of that community. The text of the letter accompanying the precious gift is given in the treatise "*De Linteis*," &c., of Chifflet. The abbey became forthwith a place of pilgrimage. Another Veronica was the object of popular devotion at Cahors in Gascony. It is related that a pious lady of the Sforza family earnestly besought and obtained permission from Pope Gregory XV., in 1621, to have painted an exact copy, of the like dimensions, from the *Vultus Sanctus* of the Vatican Basilica, which copy she presented to the Professed House of the Gesù in Rome, where it was preserved and venerated in a chapel of the rooms of St. Ignatius, founder of the Society of Jesus. Later it was removed to the adjoining Church of the Gesù, exposed to public devotion, and adorned with a silver crown. At the suppression of the Jesuits in 1773 it was removed therefrom, but restored by Pope Leo XII., who by the brief "*Salutis nostræ spes*," of February 16, 1825, ordered it to be replaced in the chapel of the rooms of St. Ignatius, confirming the indulgences conceded by Clement XIV. to those visiting it.

Though Panciroti, Signorile, Ferrari, Piazza, and other writers, deem Veronica to have breathed her last in the Eternal City, where her remains found sepulture in the Basilica of St. Peter's, near the Chapel of the *Vultus Sanctus*, there is not the slightest proof in support of their assertions, which are, however, repeated in the Ambrosian Breviary of the Milanese Church; no traces whatsoever exist either of the tomb or of the body of the holy woman glorified by so striking a miracle, so highly honoured by Tiberius, and rendered so dear and venerable to the primitive Church by her close relations with the Saviour of the world. Certainly Rome, so jealous of the glory of her saints and so tender of their relics, had she ever possessed so sacred a deposit, would not have suffered quietly the loss thereof. Neither is there more foundation for the second theory of her death in Jerusalem, as we read in the Revelations of Catherine Emmerich, who at different dates declares Veronica to have returned to Palestine to end her days in the land hallowed by the death of Jesus. During the persecutions directed against Lazarus and his sisters, Veronica, who was of remarkable beauty, shared in their perils and sufferings, and finally, together with several of her female friends, sought safety in flight; but pursued and overtaken, they were thrown into prison, where Veronica died of hunger for the name of Jesus, to whom she had so often ministered earthly nourishment. Were this latter supposition true,

Jerusalem, which still points with pride to the "House of the Saint," would have preserved with due care all other indications of her presence; whereas, whilst her name is in everlasting remembrance, her prison is unknown and her tomb forgotten. Secular tradition assures us that Veronica died in Saul, near Bordeaux. Peter Suberto, "*De Cultu Vineæ Domini*," St. Antoninus, and others, state that she passed from Rome into France, where her presence is attested by an author of high historic reputation, the Dominican Bernard de la Giuonie, Bishop of Lodère, who notes that many ancient chronicles attest that St. Martial, the Apostle of Aquitaine, had in his train a man of God, named Amateur, with his wife Veronica, who had been the companion and familiar friend of the Most Blessed Mother of God. Amateur became a hermit, and dwelt long in a rocky solitude, then known as Vallis Tenebros, but which from him received the name of Roc-Amadour—"Amator Rupis," the popular appellation bestowed on the pious solitary—now one of the most celebrated sanctuaries of France, wherein is venerated an image of Our Blessed Lady dating from the time of St. Martial and St. Amadour, 47 A.D., having been fashioned by the hands of the latter. Pope Martin V., in 1425, declared the foundation of the Church of Roc-Amadour to date from the origin of Christianity—Amadour being no other than Zaccheus of the Gospel, the disciple of Christ, and that he had been husband of Veronica. The Breviaries of Limoges, of Toulouse, of Bordeaux, of Cahors, of Carcassonne, of Tulle, of Agen, of Angoulême, of Périgueux, &c., of the seventeenth century, repeat in substance these ancient legends, which likewise form the basis of inspiration of the Office in honour of St. Amateur, approved for the diocese of Cahors by the Sacred Congregation of Rites, in 1852. Zaccheus, or Amator Rupis (Lover of the Rock), was first buried in the vestibule of the Chapel of Notre Dame de Roc-Amadour, whereof he had been the founder, where his body remained concealed until 1166, when it was discovered entire and uncorrupted, and fittingly enshrined within the church near the altar, where numberless miracles were wrought by his intercession. The remains continued for many centuries in so perfect a state of preservation as to give rise to the familiar proverb, "Entire as the body of St. Amadour." In 1562 the Huguenots stormed the city, pillaged the chapel, and cast into the flames the relics of the Saint, which being, nevertheless, respected by the fire, Captain Bessoni, the heretical commander, seized a blacksmith's hammer, and proceeded to break in pieces the blessed remains, accompanying the impious deed with the most horrid oaths and blasphemies. Odo de Gissey, a monkish chronicler of the time, states to have learned from an eye-witness of the horrible spectacle

that the beard was yet discernible on the face of the Saint, whilst the Father himself testifies to having seen and venerated an arm and hand which had been rescued from the flames, one of the fingers, which was broken, showing traces of blood as fresh and red as if issuing from a body newly wounded. The relics of St. Amadour were anew profaned in 1793, and naught now remains but some fragments of half-carbonized bones, mingled with dust, similar to black ashes, and the liver is fresh and elastic as if in life. His feast is celebrated throughout the diocese of Cahors on August 26. That of Our Lady of Roc-Amadour falls on the Festival of the Nativity of the Blessed Virgin, Sept. 8, during the Octave whereof some 40,000 pilgrims visit that Sanctuary.

Veronica, spouse of Zaccheus, or Amadour, continues the Bishop of Lodere, faithfully attended St. Martial in his apostolic journeys, until, worn out by extreme old age, she retired to the sea-coast, near the mouth of the Garonne, where St. Martial built and consecrated a chapel in honour of the Virgin Mother of God, which bore the name of Soulac (*solum lac*), the etymology whereof has given rise to curious discussion. Here she remained quietly until her death, 70 A.D., aged 97 years, and was buried in the chapel of Soulac, whence, because of troublous times, her body was removed to Bordeaux, the ancient Burdegala, and now reposes in the Church of St. Seurin, formerly the cathedral, dating from the eighth century. It is almost entire, a small portion of the bones having been placed in the Altar of St. John Baptist, in the Carthusian Church of Bordeaux; while one of the femoral bones was presented by the Chapter of Bordeaux, Oct. 10, 1659, to the parish priest of Saint-Eustache, Paris, in which church is established a celebrated Confraternity under the invocation of St. Veronica. During a recent official verification of the relics of our Saint, a physician named Oré, a member of the Investigation Committee, pointed out two very important proofs of the extreme old age of the subject under examination—namely, "the complete ossification of the articulations uniting the parietal bones to the forehead, and the rarefaction of the *tineis osseus* at the upper extremity of the left thigh, both indications of very advanced years. In the modern Church of St. Seurin of Bordeaux, built towards the close of the thirteenth century, two windows in stained glass, later additions, reproduce the pious and touching history of St. Veronica.

"Les Origines Chrétiennes de Bordeaux," whence much of the above information is drawn, in chapter ii., consecrated to the apostolate of St. Veronica in Médoc, clearly establishes the thesis of the existence and the mission of that holy woman, adducing as a further and irrefragable proof, the resuscitation of the

marvellous Basilica of Soulac, which, casting off the winding-sheet of sand, enwrapping it for eight centuries as a Lazarus of stone recalled to life, thanks to the late Cardinal Donnet, Archbishop of Bordeaux, speaks visibly to the numerous bands of pilgrims who flock thither from all sides ; and a witness of the eleventh century points proudly to the fact that of its three principal apses, that of the right was dedicated to St. Veronica, whilst a second altar in her honour, in the opposite lateral nave, faced the magnificent Roman entrance-door. This second altar was specially the seat of the devotion to the Saint, where the vows were pronounced in her name ; at the foot thereof flowed the fountain known as of " St. Veronica," where the sick came to drink and to bathe the eyes, for which purpose the water was caught in a basin, styled " Font of St. Veronica." Her statue rose beside the font placed near the more modern eastern door of ingress. After making the sign of the Cross, a salutation was addressed to " Dame Veronica," and the veiled female head in the centre of an ogive is supposed allusive to the Saint, since this bit of sculpture, found amid the *débris*, now carefully preserved, of the high altar raised in honour of Our Lady by the venerable Peter Berland, Bishop of Bordeaux, 1430, is in nowise suitable to the Mother of God, but could well apply to Veronica, and is thus described by Père Bonaventure, writing in 1680 : " There still stands behind the altar of Soulac a column on which Veronica is portrayed." She likewise appears amid the personages of an altar of St. John the Baptist, in carved wood of the eighteenth century, transported from the ancient to the modern church. Opposite to St. John, patron of the altar, stands St. Benedict, founder of the Order of Religious then serving the Basilica. At the extremity of the reredos, to the gospel side, the man in Hebrew dress, without any of the attributes distinguishing the apostles, is evidently Zaccheus ; whilst to the epistle side is a woman holding a pebble, undoubtedly St. Veronica, bearing to Soulac the stone, stained with blood, picked up near the martyr St. Stephen, and numbered among the relics venerated from the highest antiquity in the Church of Notre Dame de Soulac, or " de la Fin-de-Terres," as it was popularly styled. Finally, as earnest of a *cultus* deeply graven in the minds of the people, we find, even in our own day, amid the sorcerers so common in Médoc, a formula of conjuration, " by Zaccheus and by Veronica."

Those who hold St. Veronica to have been the Hemorrhisse of the Gospel, class her with St. Fiaker, in French St. Fiacre or Ferre, Anchorite of Meaux, in the seventh century, honoured August 30, who is invoked against the disease known as " la

maladie de St. Fiacre" (St. Fiaker's evil).^{*} Anne of Austria attributed to his intercession her cure, which had baffled all medical remedies. Hence the establishment of the Feast of St. Veronica in those churches where St. Fiacre is specially venerated, as in St. Catherine la Couture, St. Ives, St. Josse of Paris, and many other churches in divers places, particularly at St. Gilles in Valenciennes, where she is styled "Sainte Venice," abridged from Veronique, and where the women brought linen bands to be blessed which they wore during the Novena, as is likewise practised in the Church of St. Margaret at Tournay. From the linen cloth whereon is pictured the Holy Face the linen-drapers and laundresses have chosen as patroness St. Veronica, whom they ordinarily name Sainte Venice. She does not appear in the ancient Martyrologies, nor even in the Roman Martyrology. St. Charles Borromeo at Milan, and Cardinal Baronius at Rome, cancelled from the Liturgy the Feast of St. Veronica, to replace it by that of the Holy Face of Our Lord, specially honoured on Shrove Tuesday, though in Paris and in other localities in France the feast in honour of the Holy Face was celebrated sometimes even on Ash Wednesday. In

^{*} St. Fiaker, eldest son of Eugène IV., King of Scotland, studied under Conan, Bishop of Sodor, or the Western Isles, and, the more freely to serve God, fled his own country and embraced the life of an Anchorite, near Meaux, France, where he tilled the ground for his subsistence, and healed many who sought the aid of his prayers. He died August 30, 670, and was buried in his own oratory, which soon became a place of pilgrimage and shrine famous for miracles. St. Fiaker is patron of the Province of Brié, and titular saint of several churches throughout France, in which kingdom his name has been famous for twelve hundred years. His relics were transferred to the Cathedral of Meaux, 1568. Anne of Austria obtained through his intercession the recovery of Louis XIII. when dangerously ill at Lyons, and in thanksgiving made a pilgrimage on foot to the shrine of St. Fiaker in 1641. Du Plessis states that the name *fiacre* was first given to the French cab or hackney coach, because hired coaches were originally made use of for the convenience of pilgrims going from Paris to visit the shrine of this saint, were adorned with his picture either on the outside or inside, and were hired at an inn known by the sign of St. Fiaker, or Fiacrius; hence they received the appellation of *voitures de St. Fiacre*, later shortened into "*fiacre*." He is invoked against accidents and honoured as their patron by gardeners; he is generally represented clad as a monk, with a spade in his hand. He appears in the Roman Martyrology, August 30. History relates that Henry V. of England, having been defeated at Baugé by Charles VII. of France, who had Scottish troops in his service, pillaged the monastery and shrine of St. Fiaker, by reason of the saint having been born Prince of Scotland, but was almost immediately seized with fistula, known as *mal de St. Fiacre*, which caused his death at Vincennes in 1422, whence he is said to have declared shortly before his decease, "that not only the Scots who were on earth favoured France, but likewise those who were in heaven."

fact, the Feast of the Veronica seems instituted in various churches merely to honour Our Divine Lord in venerating some representation of the "*Vultus Sanctus*:" the masses, offices, and prayers composed for the occasion all refer to Jesus Christ, and recall His Sufferings and Passion.

Within our own day has grown up, by permission of God, a devotional "*cultus*," which is being warmly propagated throughout the Church—the devotion of Reparation to the Holy Face of Our Lord Jesus Christ. This beautiful devotion, which dates from 1845, and has accomplished so many wonders and is fraught with so many blessings to mankind, has for its object to repair the outrages committed against the Divine Majesty by blasphemy, and the profanation of Sundays and Festivals of the Church; to obtain the conversion and salvation of blasphemers and profaners, and to preserve families and youths from the fatal effects of these scandals. To attain this triple object, it is proposed to render special worship of adoration and love to the Most Holy Face of Our Lord Jesus Christ. It originated, like the now world-wide devotion to the Sacred Heart of Jesus, in private revelation of the Divine Will to a holy Carmelite nun, Sister Mary of St. Peter of Tours, France, where she died in the odour of sanctity, July 8, 1848. She was the daughter of a poor workman, and born at Rennes in Brittany, Oct. 4, 1816, and though little favoured by Nature, was singularly privileged by God, and seems to have been attracted to Tours by an act of special protection of the great patron of that city, St. Martin. On her entrance in the Convent of Carmelites of Tours, she received the name of Mary of St. Peter, and God quickly manifested His designs in her regard. The revelation wherewith she was favoured had in view at first a devotion for the reparation of blasphemy, and the establishment of an Arch-Confraternity for that purpose, which, after considerable efforts on her part, was finally erected, and on July 27, 1847, received the approbation of the Sovereign Pontiff, Pius IX., who, to show his interest in the great work, placed his august name first on the roll of the association, loaded it with benedictions, and also took occasion to remark: "This reparation is a divine work destined to save society."

The following quotation from one of Sister St. Peter's letters will sufficiently indicate the nature and object of the devotion:—

Our Lord transported me in spirit on the way to Calvary, and gave me a vivid representation of the pious office which St. Veronica rendered to Him, who with her veil wiped His Most Holy Face, covered with spittle, dust, sweat, and blood. Then this Divine Saviour gave me to understand that the impious actually renew by their blasphemies the outrages done to His Holy Face, and I comprehended that all those

blasphemies which they cast at the Divinity, whom they cannot reach, fall, like the spittle of the Jews, upon the Holy Face of our Lord, who has made Himself the victim for sinners. I understood then how our Lord said that, by applying oneself to the exercise of making reparation for blasphemy, the same service was rendered to Him as the pious Veronica performed; and that He regarded those persons with eyes of the same complacency as that with which He looked at Veronica at the time of His Passion. Our Lord [said the Sister in another letter] caused me to know that this August Face, offered to our adoration, was the ineffable mirror of the Divine perfection—perfections which are contained and expressed in the Most Holy Name of God. I understood that, as the Sacred Heart of Jesus is the sensible object offered to our adoration to represent His immense love in the Most Holy Sacrament of the Altar, so in like manner the Holy Face of our Lord is the sensible object offered to our adoration to repair the outrages committed by blasphemers against the majesty and sovereignty of God, of which the Holy Face is the figure, the mirror, and the expression; and that by the virtue of this Holy Face, offered to the Eternal Father, we may appease His anger and obtain the conversion of the impious and of blasphemers. . . . Our Lord (continues the saintly *religieuse*) showed me an example of the virtue of the Holy Face in the Apostle St. Peter. This apostle had effaced the image of God in his soul by his sin of denial; but Jesus turned his Holy Face towards the faithless apostle, and immediately he repented. . . . He had furthermore promised me to imprint on the souls of those who honour His Holy Face the traits of His divine resemblance, since they, like the pious Veronica, wipe His adorable Face, outraged and disfigured by sin.

St. Gertrude and St. Mechtildis were also distinguished for special devotion to the Holy Face, of which they have left proofs in their writings; whilst the late M. Léon Dupont, "the Holy Man of Tours," whose cause is even now initiated before the Sacred Congregation of Rites, and who was wont in his humility to style himself "the servant of Sister St. Peter and the executor of her thoughts," made it his duty to propagate this holy devotion. Having in 1851 received from the Mother Prioress of the Carmelite Convent of Tours a duly authenticated copy of the Veronica, or *Vultus Sanctus*, venerated in the Basilica of St. Peter at Rome, and which had touched the sacred relic, he had it framed and placed in his oratory on the Monday in Holy Week; and on Holy Tuesday, the day whereon our Lord was sold by Judas, consequently that best suited for a glorious reparation, he lighted before it a lamp, destined to burn perpetually day and night, and numberless miracles, wrought in favour of persons who prayed and made use of the oil from this lamp, quickly rewarded his faith and devotion. These miracles, the first three of which occurred successively on the following Good Friday, Holy

Saturday, and Easter Tuesday, are now too well known and established to be disputed. Mgr. Paul Guérin testified to having himself seen over 6,000 certificates of cures wrought by virtue of the miraculous oil in this oratory of the Holy Face, long since become the resort of pilgrims from all parts of the universe; whilst it is computed that during his lifetime M. Dupont sent no less than 2,000,000 of little bottles filled with oil from the lamp of the Holy Face, each accompanied by a letter, to persons who had recourse to his charity.

After the death of M. Dupont, March 18, 1846, the then Archbishop of Tours, Mgr. Colet, who had already by an official document declared the deceased "to have died in the odour of sanctity," gave permission to purchase the Dupont mansion, which he had inhabited for forty-five years, and to erect an altar therein. The oratory of the servant of God was forthwith enlarged, converted into a public chapel, and solemnly dedicated to the Holy Face, on June 29, Feast of St. Peter and St. Paul, by the Archbishop himself, who established there the Confraternity for the Reparation of Blasphemy and Devotion to the Holy Face, which is canonically affiliated to the Arch-Confraternity of Reparation of St. Dizier, erected by episcopal ordinance of Mgr. Parisis, June 28, 1847, and approved and richly indulgenced by Pius IX., July 27, 1847; but whilst having the like aim of reparation of the outrages committed against God by blasphemy and the profanation of the Sunday, its distinctive characteristic is its divine object, the adorable Face of our Lord Jesus Christ, outraged and disfigured in His Passion. The badge of the Confraternity is a little cross, whereon is engraved the impression of the Holy Face, with the "*Vade retro Satana,*" and the words, "*Sit nomen Domini benedictum.*" The badge of the Arch-Confraternity of St. Dizier, diocese of Langres, is also a cross, bearing in the centre a medallion, having on one side the Jehovah in a triangle, and on the other the Holy Face of the Saviour. The chapel of the Holy Face at Tours is served by a society of priests living in community, instituted by the late Mgr. Colet under title of Priests of the Holy Face, on whom is imposed no particular vow, though they are bound by a religious rule at once suited to the contemplative and active life, their special object being to study, contemplate, and adore the Most Holy Face of Our Lord Jesus Christ, and to make it known to and adored by others. They are subject to the Archbishop of the diocese as their head superior, and they are engaged in preaching, in the administration of the sacraments, in epistolary correspondence, &c., following the example of M. Dupont, whom they regard as their founder, and pending the decision of the Church, venerate as their father. They forward on demand the little

vials of oil, books, prayers, and other pious objects relating to the devotion to the Holy Face, and endeavour to propagate the use of the medal of St. Benedict and the work of the Nocturnal Adoration which was established at Tours, Feb. 2, 1849, with the approbation of Mgr. Morlot, on the plan of that organized in December, 1848, in the Church of Nôtre Dame des Victoires, Paris.

Devotion to the Holy Face is generally spread throughout France, and in other countries as well. In the diocese of Carcassonne more particularly it exists in almost every parish, where it is the source of the greatest benedictions; and it is stated that some of the most zealous bishops of France purpose petitioning the Holy See to obtain the institution in their respective dioceses of an annual feast in honour of the Holy Face, since the Church, which in the Feast of the Transfiguration celebrates the glories of the Divine Face of the Redeemer, has not as yet consecrated any office, any special solemnity, to honour it in its humiliation and sorrow. Nevertheless, the Feast of the Holy Face would seemingly complete the series of feasts in honour of the Sacred Passion of Our Lord, as in no other portion of His body did the Saviour of Mankind endure greater suffering and ignominy than in His most sweet Face, no circumstance of His Passion has been more clearly set forth by the Evangelists, and certainly it was by the special design of God that details of these outrages offered our Redeemer have been handed down in Scripture.

ELLA B. EDES.

ART. VI.—THE ROYAL COMMISSION AND THE
HOMES OF THE POOR.

1. *The First Report of Her Majesty's Commissioners for inquiring into the Dwellings of the Working Classes.* London: Eyre & Spottiswoode. 1885.
2. *The Royal Commission on the Housing of the Working Classes.* Vol. II. *Minutes of Evidence and Appendix as to England and Wales.* London: Eyre & Spottiswoode. 1885.

BARELY a year has elapsed since we called attention to the state of public opinion with reference to the homes of the poor. A sudden awakening had taken place; from apathy society had rushed to enthusiasm; princes visited paupers, and "slumming" became as fashionable as dancing. Stories of misery and

horror indescribable became current, the vices of Seven Dials were canvassed in Mayfair. We, who knew something of the history of the panic, expressed a dread lest the sensation should pass away, like other sensations, without any tangible result. Our fears were not ungrounded, but they were not apparently wholly realized, and the principal outcome of the movement is now before us. After those words were written, but before they were in the hands of the public, her Majesty had issued her Commission for an inquiry into the dwellings of the working classes.

It remains for us now to consider whether the result has been adequate to the occasion, and whether the Report which her Majesty has received is such as to lead us to expect that a speedy carrying out of its provisions will remedy, to any appreciable extent, the evils which the evidence taken by the Commissioners exposes.

At the outset, we cannot but feel that her Majesty placed the matter into hands as competent as could possibly have been found. Sir Charles Dilke has a very real and practical acquaintance with the subject and takes to it *con amore*. The Prince of Wales at least adds dignity to the Commission. The Cardinal Archbishop of Westminster has perhaps the greatest knowledge of the poor and their wants of any man in England. Sir Richard Cross is the Conservative, and Mr. Torrens the Liberal, legislator on the subject, whilst Mr. Broadhurst is identified with the artisans, and Mr. Jesse Collings with the agricultural labourers. The rest, in one way and another, are well known in connection with this matter.

Only less imposing than the Commissioners is the array of witnesses whom they examined. Over a hundred witnesses appeared before the Commissioners, all of them who could speak with authority on some portion of the subject under investigation. The plan of the evidence is set out in the Report, and is briefly as follows : Evidence was taken as to the powers of local authorities under existing Acts ; next, the subject of overcrowding was dealt with ; then, the condition of selected portions of the metropolis was investigated in minute detail. The neighbourhood chosen covered Clerkenwell, St. Luke's, and a portion of St. Pancras parish. The witnesses examined included the local clergy, medical and other officials, members of vestries, freeholders, school-board and police officers. Evidence was also taken as to the general condition of things throughout the metropolis.

Next, witnesses were examined from Bristol, Newcastle-on-Tyne, Birmingham, Merthyr-Tydvil, Leeds, and Liverpool.

To illustrate the condition of the poor in towns of secondary importance, Exeter and Doncaster were considered, and the state of the smaller towns was exemplified by Camborne and Alnwick.

The evidence forms a most important work of reference on the whole of the subject under consideration, for the Commissioners had at their disposal ample means of obtaining the best information, and used their powers liberally and with discretion. To deal with the evidence in detail, to analyze and criticize the 18,260 questions and answers which fill up the bulky volume before us, would far exceed our limits. We propose rather to make use of it in illustrating and discussing what, after all, is the kernel of the whole matter, the recommendations of the Commissioners.

The smaller volume, which contains the first Report, dealing with the condition of England and Wales (the Report on Scotland and Ireland not yet being completed), opens with the document appointing the Commission. It then briefly sums up the law and facts. This *résumé* of the law is incomplete, but as the subject has recently been dealt with in these pages we need say nothing further about that portion of the work. The Report then gives a brief account of the evidence taken, and summarizes the causes which are alleged to have given rise to the present state of things.

Interesting as the evidence is, and important as it is rendered by its quantity and the authority of the witnesses, a far more important part of the documents before us is that comparatively small portion of the Report which contains the recommendations of the Commissioners. Before considering these recommendations in detail, there are certain preliminary criticisms as to the general form of the Report which we are bound to make. In the first place, the literary style is feeble, but this is of minor importance. A far greater objection, to our minds, is the method in which a commentary on the evidence is combined and muddled up with the material portions of the Report. Far more weight, we are bound to confess, would be given to the recommendations of the Commissioners had the reasons for those recommendations not been stated. In the first place, the recommendations do not always appear to be logical deductions from the reasons given. For instance, after mentioning a number of places where bye-laws under the Public Health Act, 1875, were not properly enforced, a recommendation is made that "the local authorities should be empowered to make bye-laws, as provided in § 90 of the Public Health Act, 1875, without any previous action on the part of the Local Government Board."* Here the natural conclusion would surely have been, not that the local authorities should be empowered to make bye-laws, but that they should be *compelled* by some adequate authority to make such bye-laws, *and to enforce them*. Secondly, it is not satisfactory to be told that the reason why a recommendation is made, is that Mr. So-and-so

* Report, p. 30.

thinks that it should be so ; as, for instance, "that the sanitary laws as regards the metropolis should be consolidated," because Mr. Boodle thinks them incomprehensible. We certainly agree that they should be consolidated, but we feel that the reason is inadequate. The recommendations are deprived of some of the weight which they should carry by this want of arrangement. They would have had more chance of attracting public attention had they been clearly and concisely stated instead of being mixed up with so much chaff as to rival the needle of the proverb.

There is another objection that occurs to us on this subject of the form of the Report, and that is the want of order in the arrangement of the recommendations. Questions which would require the most careful handling of statesmen are mixed up with suggestions as to vestries and arbitrators ; reforms which would revolutionize the statute-book are squeezed in between lawyers' bills and water-closets. One recalls one's mind suddenly from the most intricate questions of finance to consider how many inspectors of nuisances are required for a parish. Whether any logical sequence is aimed at, we are at a loss to conceive ; we have failed to find the clue. A large part of the recommendations is taken up with a discussion between the Commissioners as to a matter of Treasury book-keeping which we certainly should not have missed. Had the recommendations been put in a proper form, one would have known where to skip ; as it is, one is suddenly engulfed in the midst of this discussion without any sight of land.

A third objection which we take at starting to the general form of the Report arises, no doubt, from the composite character of the Commissioners. No doubt, a Conservative Commission or a Radical Commission would have given us more thorough proposals ; as it is, the Report has "compromise" written on every line. No recommendation goes far enough ; almost every recommendation is vague ; as to the details and carrying out of every recommendation, the Commissioners are obviously divided. The Report is doubtless valuable as showing how far all men are willing to go in the direction of reform ; unfortunately, however, it conclusively proves that the distance is very small. When we come to consider the recommendations more in detail, we shall discover at every turn instances which will confirm this objection. Indeed, how startling a confirmation of this objection do Mr. Dwyer Gray's opening words, in his supplementary memorandum, present ! "I cannot but feel that even if all the recommendations contained in it [the Report] were adopted, they would scarcely have an appreciable effect upon the terrible evils which the Commissioners have so laboriously elucidated." *

We have complained of the want of system in the ordering of

* Report, p. 67.

the recommendations; a fourth objection to the general form of the Report presents itself in connection with this point. As the want of arrangement suggests to us a want of a clear general idea and purpose in the minds of the Commissioners, or a complete want of unanimity as to the methods of carrying out that idea, so do the nature of the recommendations themselves suggest to us a want of any consistent theory or method of treating the evils which are proved to exist. That the suggestions should have been all consistent one with another, or that one specific panacea should have been recommended, we could not expect; but we might at least have had the alternative suggestions stated, and been told what recommendations were intended to carry out the several reforms. To illustrate our meaning. There is a great question in the minds of every one who has studied this subject, as to whether the final responsibility of seeing that repairs are carried out should rest with the landowner or the local authority; some think the landowner, some think the local authority. Some of the Commissioners think one way, some think the other. They do not in their general Report recommend definitely that one course or the other is the right one. But instead of stating the two methods, and saying that they are unable to agree, and that, if one method is right, then such reforms are desirable, if the other, then such other reforms; they recommend, in one place, reforms to carry out one principle, in another, reforms to carry out the other. Consequently, a number of the recommendations are useless, if others are carried out; and so the Report wears an aspect of self-contradiction.

But if the Report in itself appears self-contradictory, how scathing is the criticism which it suffers in the supplementary memoranda. A, B, C, and D, recommend four courses. A, however, says the first is bad; B and C agree that the other three are intolerable; and D says he has no difficulty in recommending the four courses, but the whole are rubbish. This is a mild way of stating the relation between the supplementary memoranda and the Report. The divergence between the individual memoranda is still more marked. Perhaps, Mr. Dwyer Gray's memorandum, which we have already quoted, is the most marked instance of this difference of opinion; but there are many other notable instances which we shall notice when we come to consider the recommendations in detail. These extraordinary criticisms of the Report by individual reporters cannot but shake the public confidence in the result of the labours of the Commissioners. How fatal are these criticisms we shall see when we come to deal with the principal recommendations separately. In taking these objections to the form of the Report, we must be understood not thereby to condemn the matter itself, which we must admit to be exhaustive, painstaking, laborious. The elaborate

memoranda show how carefully each Commissioner has worked at his subject; but in these matters, of course, *quot homines, tot sententie*.

In turning our attention to the Report itself, we propose, in the first place, to put our readers in possession of the principal points to which reference is made before proceeding to criticize the details. We do this because, at present, the general public are somewhat in the dark as to what the Commissioners have recommended. Some few items are known, but the general drift of the Report is as yet a mystery. This, no doubt, is greatly owing to those very faults in the Report which we have already pointed out.

In the first Appendix, which follows this paper, will be found a complete analysis of the Report. In this will be seen at a glance the principal recommendations made in the main body of the Report. In this table we have not followed the order of the Report itself, chiefly for the reason that it maintains no very formal consecutiveness, but presents its points in a conversational and haphazard form.

The recommendations which appear under the heading A. in the Appendix are those which are of first class, or political, importance. They are those for which a statesman would at once look with a view to treating the subject on broad and general principles. It is not surprising, in view of the composite character of the Commission, that commissioners could not agree to give that decisive opinion upon them which we should have wished, and that accordingly those recommendations do not at all hold the first place in the Report. One has to search for them with care, and finds them with difficulty. They are not explicitly stated, but rather implied by innuendo and hint—we almost doubt whether the Report can be said even to recommend them. It rather treats them as coming events, which may be anticipated, not as specifics, which will save.

The most important are those which deal with the reform of local government, the reform of the municipality of London, and the reform of county administration. The former is alluded to in these words:—"It does not appear that more satisfactory action on the part [of the local authorities] can be secured without reform in the local administration of London."* We venture to say that if the evidence given before the Commission proves one thing, it proves that the reform of the London municipality is of the most pressing urgency. Yet this is the only reference—it cannot be called a recommendation—which the Commissioners make with regard to it.

County administration fares equally ill. "Your Majesty's Commissioners, in making their recommendation, have in view

* Report, p. 34.

the probability of reform in county administration at no distant date." * This is the only allusion.

With regard to the Reform of land transfer, the Report is still more inconclusive. "Your Majesty's Commissioners feel that they are unable to make any definite suggestions on this head;" † though they seem to be agreed upon the importance of the subject, and suggest a separate and special inquiry. The other suggestions which we have classed under this head are those as to local taxation, the rating of vacant land, and the control of the water supply.

The second group of recommendations deal with the existing sanitary laws. They tend to (1) a consolidation of the law, and (2) an increase of responsibility on the part of the owner of insanitary property. The latter object is sought to be obtained by a repeal of the clause of the Act 42 & 43 Vic. c. 64, which enables the owner of insanitary property to compel its purchase by the local authority, by a simplification of the procedure to enable recovery of damages from the owner of insanitary property by those who are injured by his neglect, and by an amendment and extension of the Public Health Act of 1875, with a view to increase the penalty recoverable from owners of property which is not in a proper sanitary condition.

The other main recommendation under this head is that which deals with Lord Shaftesbury's Act, the Labouring Classes Lodging Houses Act of 1851. This Act it is proposed to simplify and extend.

Under the third group of administrative reforms the most important are those which aim at giving the Secretary of State more ample power to enforce the exercise of their powers by the local authorities. There is also a recommendation that the limits of action between the Metropolitan Board of Works and the local authorities in the metropolis should be more clearly defined by arbitration.

Under this head we also group a number of suggestions to the local authorities, which, however, the reporters seem hardly to hope will have any great influence on the persons to whom they are addressed. In recommending the making and enforcement of bye-laws, the Commissioners add that "it is not likely that in all cases such action will be taken until the people show a more active interest in the management of their local affairs. It is probable that other means might be found for enabling them to give greater effect to their views through their local representatives." ‡

Beside the making and enforcing bye-laws, the Commissioners

* Report, p. 43.

† Report, p. 49.

‡ Report, p. 29.

recommend the local authorities to increase their staff of inspectors, and to raise the qualifications, not to appoint, as was done in one case, a man who was "something in the jewellery trade,"* and not to allow their medical officers of health to be in private practice.

Under the head of general recommendations, the most important is that which suggests a commission to be appointed by the Secretary of State, with assessors from the local authorities, to inquire into the special and immediate wants of each separate district.

There is also a recommendation for the adoption of the Chambers and Offices Act, 1881, which enables lodgers to acquire the freehold of their chambers; and of the extension of the system of repayment of capital out of rent, whereby the purchase of the freehold could be effected by payment of an increased rent over a certain limited period of years.

The fifth and last group into which we have separated the recommendations, includes those parts of the Report which deal with the extension and increase of improved dwellings. As to the provision of sites, the principal recommendation is the removal of the metropolitan prisons. An amendment is suggested in the Settled Land Act of 1882, which would enable tenants for life to afford sites for model dwellings; and various amendments are suggested in Sir Richard Cross's Acts with reference to the valuation of cleared areas with a view to modifying the amount of compensation given to the owners of lands compulsorily purchased for improvements. Suggestions are also made with a view to cheapening the cost of travelling to the suburbs by the issue of cheap workman's tickets, and to obtaining correct returns of the numbers of persons displaced by railway companies in their urban extensions.

With a view to securing funds, certain modifications in the present terms for public loans are suggested, and power is proposed to be given to trustees to employ trust-money in the erection of model lodgings.

Finally, it is suggested that the displacement of the population of cleared areas should be gradual, and attention is directed generally to the subject of model lodgings.

Such are the suggestions which her Majesty's Commissioners make with a view to combating the evils which were brought before their notice by a crowd of competent witnesses. It remains to consider how far they are adequate to the purpose for which they were intended, and where they are likely to fail.

* Report, p. 33.

In examining them with this object, we shall still retain the order in which we have summarized them in the first Appendix.

Taking then the recommendations in order, the first which we have to consider are those more important suggestions which we have designated political reforms. We have said that the Report in dealing with these suggestions bears the impress of compromise. It is indeed to our minds clear that the Salisbury-Cross section of the Commission had some difficulty in swallowing two of these recommendations, the reform of the municipality of London and the reform of county administration.

That the recommendation as to the reform of London government falls short of the necessity of the case, is shown by several of the supplementary memoranda. Thus the Göschén-Stanley memorandum says that "in this respect we hold that the language of the Report does not go far enough." * "It seems to me," says Mr. Jesse Collings, "that the reference to reform in the government of London is of too halting a character. . . ." The whole evidence on this part of the subject points to the absolute necessity of a complete reform in local administration in London before any laws passed for the benefit of the poor can be expected to become operative.† To these opinions Messrs. Göschén, Stanley, Morley, Collings and Broadhurst, and the Bishop of Bedford, are pledged.

It is indeed obvious that, so far as concerns the state of London, it is hopeless to expect anything to be done until this great reform has been accomplished. The Report, indeed, is full of suggestions for tinkering the administration of the law in London; but the chaotic state of the law, and the incompetence and apathy of the authorities, preclude the possibility of a hope that these suggestions will be of any avail. It may be as well to mention them here.

The consolidation of the sanitary laws relating to London; ‡

The improvement of building bye-laws; §

The definition of the limits of authority of the Metropolitan Board of Works and the local authorities; ||

The general adoption of bye-laws under the Sanitary Acts; ¶

The increase of the numbers and qualifications of sanitary inspectors; **

The appointment of a commission to ascertain the special requirements of each district. ††

Of each and every of these suggestions it may be said that their necessity is done away with by a reform in the government

* Report, p. 62.

§ *Ibid.* B. 2 (ii).

** *Ibid.* C. 2 (iii).

† Report, p. 76.

|| *Ibid.* C. 1. (i).

†† *Ibid.* D. 1.

‡ Appendix I. B. 1.

¶ *Ibid.* C. 2. (i).

of London. Without such a reform, each and every of them becomes a necessity, and each of them is a task for Hercules.

With regard to the suggestions to the local authorities which are contained in the Report, we have already anticipated that they will have no weight; indeed, the reporters themselves express their dread of this in words which we have already quoted, and a remark in the able memorandum prepared by Mr. Göschen and the Hon. E. L. Stanley, and countersigned by Mr. Samuel Morley, confirms it: "We have no hope that any further advice, or the inclusion of this recommendation in the Report, will produce any greater effect than the pressure of public opinion has already produced on the local authorities."* It certainly could not produce less.

The Göschen-Stanley memorandum, after mentioning certain recommendations which will be a dead-letter, in consequence of the failure of the local authorities to do their duty, cites a passage from the Report which says that "the remedies which legislation has provided for existing evils have been imperfectly applied in the metropolis, and this failure has been due to the negligence, in many cases, of the existing local authorities." "In view of this judgment on the existing state of things," continues the memorandum, "it seems to us that the foregoing recommendations are almost illusory."†

The mere fact that it is absolutely certain that a great portion of the Report will be so much waste paper, in consequence of the criminal neglect of duty displayed by the local authorities, is in itself a conclusive proof of the necessity of this important reform. It is therefore much to be regretted that Lord Salisbury did not see his way to sinking political predilections and adopting the logical conclusion of the overwhelming mass of the evidence before him.

The crowning effort of the Commissioners to avoid the logical outcome of their work, is contained in the suggestion that a Commission should be appointed by the Secretary of State "to inquire into the immediate sanitary requirements of each district."‡ The Göschen-Stanley memorandum admits that such an inquiry might properly be carried out by the new London government, but readily disposes of the recommendation as applicable to the existing state of things.

In a word, then, we have on one side this large reform, already within the range of practical politics; on the other, a number of difficult and doubtful expedients which are shown by individual reporters to be inadequate and impracticable.

* Report, p. 62.

† Report, p. 62.

‡ Report, p. 36, Appendix I., D, 1.

The treatment of this one subject illustrates clearly the result which has arisen from the divergent views of the Commissioners; it is, however, satisfactory to find that men of such utterly different politics are united in thinking that some reform of the government of London is imperative.

We do not propose to treat at much length the remaining suggestions, as the one before us, and those which hang upon it, sufficiently indicate the methods of the Commissioners, but there are several other recommendations which require a moment's attention.

The next of the political reforms is that which deals with local taxation, but this, like all the other greater reforms, is not dealt with in a comprehensive manner; the most important suggestion in connection with it is that which deals with the rating of vacant land.

The suggestion is that land used for merely agricultural purposes in the neighbourhood of large towns, and yielding only a small income, but of a certain prospective value for building purposes, should be rated not at its actual annual value, but on the capital value which its contiguity to a large town implies. With regard to this suggestion, Lord Salisbury says that it was introduced at the last moment, and is not founded on any evidence before the Commission.* Mr. Göschen and Sir Richard Cross concur that there was no evidence to support it, and are of opinion that the matter should be dealt with only as part of a general revision of local taxation. This would seem to be the proper course.

The question of the reform of land transfer is of vital importance in connection with the housing of the poor in rural districts, but it is dealt with in a very perfunctory and incomplete manner in the Report. Mr. Broadhurst, however, supplies the omission by a very full scheme for cheapening land transfer, and he carries with him Cardinal Manning, Lord Carrington, the Bishop of Bedford, and Messrs. Stanley, Collings and Morley. The subject, however, is one which requires careful handling, and we do not propose to discuss it here. The memorandum in question is prepared with the best intentions, but would require much modification and elaboration before it could commend itself to any one versed in the present intricacies of conveyancing.

We have already alluded to such of the recommendations classed under the heading of legal reforms as hang upon the question of London government, but one or two others of these demand our notice. Several of them are aimed at fixing the

* Report, p. 61.

owners of property with a greater responsibility for neglect of repair.

It is greatly to be regretted if, as the Göschen-Stanley memorandum implies, "the subject scarcely appears to have been adequately discussed." * The powers of lessors to enforce the covenants for repairs is dealt with in that memorandum, and it is pointed out that by a recent Act† these powers have been curtailed with a view to limit the landlords' powers of re-entry. It is true that Cardinal Manning, Lord Carrington, the Lord Provost, and Messrs. Stanley, Gray, Torrens, Broadhurst, Collings, Godwin and Morley, believe that the real secret of dealing with leases is to enable the leaseholder to acquire the freehold of his property; but Lord Salisbury says that this has nothing to do with the housing of the poor, and it is certainly true, as he says, that the only effect, so far as the class of tenements occupied by the poor are concerned, of such a measure would be "to put the house-farmer in the position now occupied by the ground landlord."‡ Such a result is greatly to be deprecated, and it is much to be regretted that the Commissioners did not see their way to arrive at some adequate conclusion on so vital a matter.

A very strong recommendation is made in favour of the Chambers and Offices Act, 1891, which enables the occupier of a room or rooms to acquire the freehold of his tenement. But there are very fatal objections to the working of this Act; and we question whether even Sir S. Waterlow's Company, mentioned in the Report, will render its working of any practical value. Another suggestion in connection with this, however, is important—viz., the power of repaying capital by rent; a system which enables the occupier, by paying an increased rent over a period of years, to become the freeholder, and which would be of great importance in rural and suburban districts. The same result is, however, already obtained by means of building societies.

Of the recommendations dealing with the extension of improved accommodation, the most important is that which suggests the removal of the metropolitan prisons in order to afford sites for model lodgings. The Surveyor-General of Prisons gave evidence to the effect that the removal would not be disadvantageous; and accordingly, if such a removal were effected, a considerable area of ground would be at the disposal of the Government. There are, however, many sites available for such dwellings in the market from time to time, and we are not aware that any special lack of sites exists at the present

* Report, p. 63.

† The Conveyancing and Law of Property Act, 1891.

‡ Report, p. 61.

moment. The real difficulty is how much should be paid for the sites. If, as the Report suggests, something less than the market value be paid, then the Government will simply be called upon to contribute the difference as a subsidy for the object of housing the poor of London, and other towns will no doubt desire a similar grant. If, however, the sites are simply sold at their market value, we question whether the suggestion will go any length towards helping the objects in view.

Other suggestions under this head are those which aim at increasing the facilities of the local authorities, whether by larger powers or by improved methods of valuation, for obtaining and dealing with areas of ground covered by the houses of the poor. Upon this subject, again, the Commissioners are at variance, it being a question whether the powers of the local authorities should be extended or restrained. Messrs. Göschen, Stanley and Morley, and Sir Richard Cross, think that the powers of the local authorities should be restrained, on the ground that they interfere with private enterprise, it being obvious that if the local authorities are to provide accommodation at the expense of the rates, private enterprise cannot compete with them on purely commercial principles.

On the other hand, Mr. Dwyer Gray goes to the opposite extreme, and considers that the whole town should be purchased by the municipality and dealt with as a whole. We must say that, although this suggestion is rather a startling one, it is very difficult to see where the line is to be drawn, if once money is to be spent by the local authorities over the acquisition of sites and the erection of houses. Either these matters must be dealt with by individuals or by the municipality. If by private individuals, then there must be no interference by the municipality; if by the municipality, private individuals will not be able to compete on equal terms, and will retire from the field.

Other suggestions are made in the Report with a view to providing funds for improvements, both by public loans and by the application of trust funds, with which we need not further trouble our readers.

With regard to the supplemental memoranda prepared by individual reporters, we have alluded to them from time to time, and in the second Appendix will be found a summary of the principal suggestions contained in them.

In the third Appendix will be found a few remarks relating to the memorandum of Mr. Dwyer Gray, already referred to.

We have seen in some detail what are the main recommendations of the Commission, let us briefly sum up the conclusions of this important and voluminous investigation.

Several important, if not original, suggestions have been made with a view to reforms of vital importance in dealing with

this matter, but unfortunately want of unanimity among the Commissioners has resulted in a want of decision in enforcing them.

We have found two main original suggestions. One, of a commission to inquire into the particular needs of each district; the other, of the removal of the metropolitan prisons.

The former, Messrs. Göschén, Stanley and Morley declare to be either inopportune, or, if not inopportune, then impracticable.

The latter we find to be practically useless, unless accompanied by a subsidy which would lead to difficult complications.

Of the remaining suggestions relating to matters of detail, some would be better met by a more sweeping reform; many are ingenious and valuable.

The result we cannot but feel to be incommensurate with the vast labour of the Commission or the importance of the subject.

We must conclude with two reflections suggested to us by the Report as a whole. The first has to do mainly with rural districts and is suggested by a portion of the evidence, which judging from the Report did not receive that degree of attention from the Commissioners which it deserved. There used to be a theory that the possession of property entailed duties as well as rights. It is an old doctrine and certainly obtained at one time, but no allusion is made to it in the Report of the Commissioners. Some little time ago we found ourselves in the company of a Shropshire farmer. We alluded to the recent legislation in favour of agricultural tenants. "We don't want laws," said the farmer, "we want good landlords." He then instanced Lord Tollemache.

It so happens that Mr. Impey was examined at some length with regard to Lord Tollemache's management of his estates,* and his verdict bears out our friend's dictum. It would seem that this old-fashioned notion is acted upon by a nineteenth-century landowner and peer, and that, notwithstanding Mr. Godwin's surprise, it actually pays! If all landlords were like Lord Tollemache, we fancy that the difficulty, so far as rural districts are concerned, would be at an end. Mr. Impey indeed supplied an alternative. It appears that the lucky denizens of Great Dodford are the owners of four acres of land apiece. Cardinal Manning elicited some very interesting information from Mr. Impey which went to show that these freeholders were a thriving and happy community. Here, then, we have side by side alternative suggestions—good landlords or small holdings, either equally efficacious in their way.

Our other reflection bears rather on the question of urban improvements. Mr. Godwin mentions the Familistères, or communities of workmen which have been established abroad by some large employers of labour.† M. Godin-Lemaire, at his

* Evidence, pp. 558-567.

† Report, p. 82.

works at Guise, employs 700 or 800 workmen, who are all housed in flats at rents ranging from 3s. 9d. per month per room. All are boarded, lodged and clothed on co-operative principles, and prosper greatly. "For twenty-four years no circumstance has occurred amongst the tenants that has needed the interference of the law."* Need we add that M. Godin-Lemaire has made a fortune?

Such an example might well be followed by our large employers of labour in urban districts, and would go far towards removing the difficulties now complained of and improving the style of living amongst the poor.

These are our suggestions; are they Utopian? Ask Lord Tollemache, Mr. Impey, M. Godin-Lemaire; and if they have succeeded, why should not others? And if others will follow their example, it will be a long time before we want another Royal Commission.

APPENDIX I.

SUMMARY OF RECOMMENDATIONS.

A. *Political Reforms* :—

1. Reform of the government of London.
2. Reform of local taxation.
3. Rating of vacant land.
4. Reform of county administration.
5. Reform of land transfer.
6. Control of water supply to be in the hands of the local authorities.

B. *Legal Reforms* :—

1. Consolidation of sanitary laws relating to the metropolis.
2. Amendment of existing sanitary legislation : (i.) For better regulation of cellar buildings; (ii.) Improvement of building bye-laws; (iii.) Amendment of 42 & 43 Vic. c. 64, § 5 (this clause enables the owner of insanitary property to compel its purchase by the local authority: the Commissioners think that this power should be taken away as tending to place a premium on neglect); (iv.) Amendment of Public Health Act, 1875, in order further to increase the responsibility of owners; (v.) Simplification of the procedure for recovery of damages by those injured from the owners of property in an improper state; (vi.) Abolition of the power of water companies to cut off the supply.

C. *Administrative Reforms* :—

1. As to the central authority. (i.) The limits of the authority of the Metropolitan Board of Works and the local authorities to be settled by arbitration; (ii.) Power to be given to enforce the order of the Secretary of State (under Cross's Acts) directing the local

* Report, p. 82.

authorities to deal with insanitary areas, by order of the High Court; (iii.) Similar power to enforce the order of the Secretary of State (under Torrens's Acts) by order of the High Court, instead of by mandamus. 2. As to the local authorities :—(i.) General adoption of bye-laws under the Sanitary Acts in the metropolis; (ii.) General adoption of bye-laws in urban sanitary districts without the intervention of the Local Government Board; (iii.) Increase in the number and qualifications of sanitary inspectors; (iv.) Medical officers of health not to be in private practice.*

D. General Recommendations :—

1. Appointment of a Commission by the Secretary of State, to be assisted by assessors from the local authorities, to inquire into the immediate needs of each district. 2. Chambers and Offices Act, 1881, to be generally adopted. [This Act enables occupiers of rooms to acquire the fee of their holdings.] 3. Extension of the principle of repaying capital by an increased rent over a period of years.

E. Recommendations with a view to the extension of Improved Accommodation :—

1. Removal of metropolitan prisons. 2. Improved terms for public loans. 3. Power to employ trust-money in the erection of model dwellings. 4. Amendment of the Settled Land Act, 1882, to enable the tenant for life to provide sites for model dwellings. 5. Extension and amendment of the Labouring Classes Lodging-Houses Act, 1851. [This Act enables the local authorities to provide improved accommodation at the expense of the rates, but the procedure is somewhat complicated. The Commissioners suggest that it should be simplified.] 6. Amendment of Cross's Act :—(i.) As to the valuation of premises compulsorily purchased for the erection of artisans' dwellings; (ii.) Abolition of valuation appeals; (iii.) Recognition of the principle of betterment. [Betterment is a rate on the adjoining land of owners of compulsorily purchased property towards the improvements effected on the purchased property, and is justified by the increased value given to such ad-

* Although this recommendation may be in some instances necessary, there is a still more important suggestion which might have been made by the Commissioners. It is quite clear that the work of medical officers of health can never be satisfactory when their appointment and dismissal is in the hands of the local authorities. An instance in point was before the commissioners. Mr. Shirley Murphy, the Medical Officer of Health in St. Pancras, gave evidence before the Commission, and the Report speaks in high terms of his zeal. Before the Report had left the Commissioners' hands, this gentleman had been compelled to retire from his office in consequence of the very zeal so highly commended. Since that the Local Government Board have found him a place, but this would not be always the case, and no doubt in many instances the hands of Medical Officers of Health are tied by the position of dependence in which they are placed. Their appointment should rest with the Central authority.

joining property by the improvements.] 6. Increased facilities for workmen's trains. 7. Reform of the Standing Orders in order to secure a correct return to Parliament of the number of persons proposed to be displaced by Railway Bills. 8. Displacement of the population of cleared areas to be gradual. 9. Model dwellings, especially those suited to the means of the poorest classes, to be encouraged.

F. Recommendations relating to Van Towns and Hop-pickers.

APPENDIX II.

SUMMARY OF THE SUPPLEMENTAL MEMORANDA.

I. *In favour of Leasehold Enfranchisement* :—Cardinal Manning, Lord Carrington, Lord Provost Harrison, Hon. E. Lyulph Stanley, E. Dwyer Gray, W. M. Torrens, Henry Broadhurst, Jesse Collings, George Godwin, S. Morley.

II. 1. The existing law to be enforced. 2. The sites of prisons to be sold at cost price. 3. Rating of vacant land * likely to lead to bad results. 4. Leasehold enfranchisement objectionable :—The Marquis of Salisbury, § 2 countersigned by the Bishop of Bedford.

III. 1. Reform of London government imperative. 2. Enforcement of bye-laws by local authority improbable in present circumstances.† 3. Recommendation that the number of inspectors be increased‡ likely to remain a dead-letter. 4. Recommendation for a commission‡ should more properly be left to the reformed government of London. 5. Responsibilities of owners should be increased, but the matter is one of serious difficulty. 6. The action of municipal authorities in the direction of erecting improved accommodation to be restrained for fear of interfering with private enterprise. 7. Prison sites not to be sold under value. 8. Sufficient importance not given in the Report to the work of private companies :—G. J. Goschen, Hon. E. Lyulph Stanley, S. Morley. § 5 countersigned by Lord Brownlow.

IV. Dissent from the proposal to rate vacant land :—G. J. Goschen, Sir R. A. Cross.

V. Municipal action in competing with private enterprise to be checked :—Sir R. A. Cross.

VI. 1. Towns to be acquired by the municipality. 2. Provisional suggestions :—(i.) Medical officers of health to be placed in a position of greater independence and their responsibility to be increased ; (ii.) Appointment of medical and sanitary officers to be “ *during good behaviour* ; ” (iii.) Legal procedure to be simplified ; (iv.) Sanitary conditions to be implied in all cases ; (v.) Responsi-

* Appendix I., A. 3.

† *Ibid.* C. 2 (iii.).

‡ Appendix I., C. 2 (i.).

§ *Ibid.* D. 1. || *Ibid.* A. 3.

bilities of owners to be increased, and the ownership of injurious property to be liable for his neglect, criminally as well as civilly; (vi.) Valuations to be much modified; (vii.) Reduction of rates to be made on sanitary certificate; (viii.) Local taxation to be reformed; (ix.) Vacant houses not to escape taxation; (x.) Feudal obligations still attach to the land:—E. Dwyer Gray.

VII. Scheme of Land Registration and Transfer:—H. Broadhurst, Cardinal Manning, Lord Carrington, Bishop of Bedford, Hon. E. Lyulph Stanley, Jesse Collings, S. Morley.

VIII. 1. Reform of London government necessary. 2. Water supply in no case to be cut off. 3. "Betterment" to be extended. 4. Ground rents to be rated. 5. Arbitrators to be appointed by Local Government Board. 6. Regulation of rent. 7. Local authorities to have larger powers of purchase. 8. Rural government to be reformed. 9. Landowners to supply sufficient accommodation. 10. Increase in the number of garden allotments. 11. Landowners to afford sufficient water supply. 12. Better security for the tenure of labourers' cottages:—Jesse Collings, H. Broadhurst, S. Morley, Cardinal Manning (except § 1), Lord Carrington (except § 9), Bishop of Bedford.

APPENDIX III.

Mr. Dwyer Gray's suggestion that the whole area of towns should be acquired by the local authorities requires careful consideration. We mention in the body of our article the grave difficulty which arises from the competition between the local authority in private enterprise. As pointed out in the Göschel-Stanley memorandum,* the Commissioners do not seem to have appreciated the difficulty, for, whilst recommending private action in the matter, they suggest various reforms to make the local authorities to secure property on favourable terms. It is obvious that if the local authority, having large resources at command, can obtain property on more advantageous terms than private individuals, the latter must be driven from the field. Either, then, the municipality must not interfere, or if it does interfere, it must be prepared to undertake the whole responsibility of reform. In the latter alternative, sufficient powers must be given to the local authority, and such powers practically amount to Mr. Gray's suggestion. He contemplates the acquisition by the local authority of the whole town, good with bad; and he very clearly shows that the gradual rise in value of the property will eventually extinguish local taxation. That such a reform will be easily or quickly carried out, Mr. Gray does not anticipate; but the tendency of many of the recommendations of the Commissioners is in this direction.

HENRY D. HARROD.

* Appendix II, No. III. 6.

ART. VII.—ELECTRIC LIGHT AND ENERGY.

A LITTLE more than a hundred years ago Benjamin Franklin sought an open spot in the forest, away from the gaze of the five thousand inhabitants of Philadelphia, and there brought lightning from the clouds. To-day that forest is many miles of streets lit with electric lamps; each street is thronged with its many thousand inhabitants, in whose midst was lately held their Electrical Exhibition—a glorious tribute to Franklin, the ripe development of his daring effort. This development of electrical science is one of the many examples of the evolution of knowledge—a gradual evolution. Man, for centuries, simply beheld the lightning flash in the sky, until the daring Franklin brought it to the door of the laboratory; for long it dwelt there, bewildering and unruly. Manacled at last, man now sends it forth a minister to his daily wants.

In this article I purpose to treat of some of these newest electrical developments, but as a preliminary it may be well to point out what man now surmises concerning the nature of an agent so lately enveloped in mystery. The public generally are greatly mistaken as to the nature of this subtle agent; but perhaps their mistakes partly arise from the early conceptions, or misconceptions, of philosophers. In many of our textbooks electricity is spoken of as a fluid, and so has been looked upon by some in the light of a material substance. In the manner of the schoolmen, I will first confute these erroneous ideas, and state emphatically that electricity is no material fluid or substance. A wire along which a current of electricity is passing does not weigh any more than a wire in the ordinary state. If electricity were anything material the wire would have extra weight while the current was passing. Electricity is not matter, but a molecular condition of matter—a species of energy; a mode of motion. The theory of electricity, as first suggested by Faraday, and now becoming at last adopted by some of our more advanced scientists, can be perhaps best elucidated by the analogy of another form of progressive movement. Out of many familiar examples take the case of sound. A body may be in a state of motion in two ways—*i.e.*, in mass or in its minutest parts; in more scientific language, the motion may be molar or molecular. The molecular motion in the transmission of sound was aptly illustrated in the famous experiments of Sir Charles Wheatstone. In these musical sounds from instruments in a lower chamber were conveyed by the vibration of wooden rods from the lower chamber, through an intervening hall to an upper chamber, where they were gathered

up through the media of the sounding-boards of harps, thence transmitted by the atmosphere to the drum of the ear, and in the human brain translated in some mysterious way into the harmony of music. In the case of a closed circuit of wire, which conveys the so-called current of electricity to light an incandescent electric lamp, there is a somewhat similar molecular movement to that which has just been described. In the case of Wheatstone's experiment the molecular movement of a rod of wood is gathered up by the medium of a sounding-board, and communicated through the atmosphere to the ear as sound. In the case of the electrical circuit the molecular movement of the copper wire is gathered up by the carbon filament of an incandescent electric lamp, and communicated by the invisible and intangible ether to the eye as light. Both the rod and the wire are composed of particles or molecules. A molecule is composed of atoms, held in place by mutual attraction and repulsion. In the case of the grosser motion of sound the molecules vibrate as a whole; in the case of electricity, however, the movement is much more complicated, subtle, and intense—so intense as to overcome the forces of the atoms, to rupture the molecules, and re-form them differently. By this theory the resulting "polarization," as it is called, of the molecules, is presumed to constitute "electrical action."

The first observation of an electrical phenomenon is ascribed to Thales in the year 600 before Christ. The philosopher found that when amber was rubbed it attracted small particles of matter to it. There are a great many other substances in Nature which possess this property in a similar degree; every one has tried for himself the experiment of rubbing a stick of sealing wax and then observing its attractive power; vulcanite is an especially good substance for such an operation. If a vulcanite comb is only once passed through the hair of the head it will have become endowed with this electrical power. These simple experiments embody the principle of the frictional machines of which there are various forms. The first frictional machine was invented by Otto von Guericke. It consisted of a ball of sulphur, which was turned upon its axis by one person while another held his hands upon the ball, thus causing the friction necessary for the production of electricity. Hawksbee substituted a globe of glass for the sulphur. In Ramsden's machine, the more modern form, the electricity is produced by the friction of a plate of glass between two rubbers. Induction machines are now very much more used for experiments in statical electricity than are frictional machines. In these a small initial charge induced by friction is worked up into a very powerful one. Static electricity has been looked upon as useless in practical application,

but it is a barren tree that bears no fruit whatever, and although the applications of static electricity are limited, there are one or two intensely practical in their nature. A gaslighter has been invented based upon the principle of the induction machine, in theory everlasting; in the stem of this little instrument is the miniature induction machine. The simple act of pressing a knob causes the machine to revolve, and thus the electric spark, potent to ignite the gas issuing from a jet, is produced. Another use of induction machines has lately been proposed by Professor Lodge at the last meeting of the British Association in Canada. The Professor proposes to dissipate fogs at sea by means of sparks produced by Holtz's machines. The spark would be discharged at the mast's head and worked by the available steam power. Professor Lodge bases these assumptions on experiments recently made by him: a miniature artificial fog has been thus dissipated successfully, and the extension of the experiment to the reality would without doubt be interesting.

The age of practical electricity may be said to date from the discoveries of Galvani and Volta, who made manifest to the world the so-called *current* of electricity, produced, as some say, or at any rate maintained, by chemical action. In its simplest form the voltaic cell consists of (1) two plates of dissimilar metals—for example, platinum and zinc; (2) an exciting fluid—*i.e.*, dilute sulphuric acid. The two plates of dissimilar metals are partly immersed in this exciting fluid. While the two metals are disconnected we have no electrical action in progress, but directly we connect the two plates together by a conductor of electricity, chemical action is in progress. There is combustion of the zinc with the oxygen of the dilute acid, and the hydrogen escapes. Consequent upon the combustion of zinc is the production of a current of electricity in the circuit. This passes from the platinum plate through the circuit to the zinc plate, from the zinc plate through the liquid, and thence again to the platinum plate. A combination of such cells as has been described constitutes a chemical primary battery. Although a chemical primary battery is in many instances a useful source of electricity, for, *e.g.*, working the telegraph, for electric bells, for electro-gilding, and especially convenient in military operations for blasting, firing torpedoes, &c., yet it is not an adequate means for producing the torrents of electric power required to produce on a large scale what is the main subject of this paper—*viz.*, the electric light. Its production upon a large scale depends, not upon the conversion of chemical energy into electric energy, but upon the conversion of mechanical energy into electric energy in the modern dynamo-electric machine. Before describing this engine of the future, it

may be well to trace out its evolution from the classic experiment of Faraday which revealed to mankind magneto-electric induction.

Arago had discovered that when a bar of soft iron was surrounded by a coil of wire and a current sent through the coil, the bar became a magnet while the current was passing, but that it lost almost every trace after the current had ceased to circulate in the coil surrounding the bar. The fact that it does not lose every trace, but retains a faint degree of magnetism called technically residual magnetism, is an important one to remember, as it has been turned to practical account in the development of the dynamo-electric machine. The discovery of the electro-magnet, therefore, proved that a current of electricity was capable of producing magnetism. It was the illustrious Faraday who discovered that the converse of this experiment was also true, and that magnetism would produce electricity. In his discovery of magneto-electric induction, made in his passionate search for truth in nature, lay the germ of the dynamo-electric machine. The minds of some men only reflect for us the light of knowledge, but Faraday's mind, prism-like, gives us the innate splendour of each ray. His historical experiment was as follows: he took a coil of wire, this he connected with his galvanometer, that instrument which, by the deflection of a needle, is used for detecting the presence, the strength, and direction of a current of electricity in a circuit. Into this coil of wire he inserted an ordinary steel magnet. He found by the deflection of the needle that a momentary current was induced in the coil as the magnet was inserted, and that another current was produced when it was withdrawn, this time in the opposite direction. Here we have the principle of the dynamo—a rendering of mechanical energy into electric currents by means of the interaction of magnets.

The principle of all dynamos is the same; they only differ in certain minor details. They consist of two essential parts—(1) the field of magnetic force, (2) the armature. The field of force consists of one or more magnets, the armature of soft iron round which are wound coils of copper wire; this revolves in the field of magnetic force. In the earlier applications of Faraday's experiments the magnet used was an ordinary steel one. The difference between a dynamo-electric machine and a magneto-electric machine is simply that in the dynamo an electro-magnet is used to produce the field of force instead of an ordinary magnet. When electro-magnets were first used to produce the field of force, the current was always started from some extraneous source. This process is not always necessary, owing to the residual magnetism of soft iron. We owe this simplification of the dynamo to the eminently practical mind of the late Sir W. Siemens.

At present there is a great variety of dynamos in the market.

There is the "Gramme," in which the armature coil is wound upon a ring the principle of which was invented by Pacinotti. In Siemens' well-known construction the field magnets are flat and connected by pole pieces, and the wire is wound lengthways in the armature. In the "Brush" the wire is wound in sections on a ring. In the "Edison" the field magnets are of great length, and in the large machines the armature consists of copper bars. It has been found in practice that large machines are more economical than small ones for working installations of any considerable size. A giant machine has lately been constructed by Mr. Gordon. It weighs from eighteen to twenty-two tons. It can light 9,000 or 8,000 lamps of some twenty candle-power, or about 20,000 lamps of a lower candle-power. It was said but a little time ago, by those who disparaged the idea of the introduction of the electric light upon a large scale, that the reason why it would never become a commercial success was that the current was incapable of minute division. Recent achievement proves these criticisms to be unfounded. The same power of man which wrenched from Nature the secret of the voltaic arc has now accomplished this minute division. In the Gordon dynamo we have an example of a prodigious force split up into some 20,000 points of light. In this dynamo the ordinary rule of the armature being movable and the field magnets stationary has been ignored. It is, in fact, an inversion of the ordinary type, the electro-magnets being rotated between the coils in which the current is excited.

To go farther into the details of the various dynamos now in the market would be to go beyond the scope of this article, and it is necessary to be content with the elucidation of the underlying principles in which all the various types resemble one another. The study of detail, however, is far from unimportant; the efficiency of the dynamo depends upon the arrangement of detail—the more perfect the arrangement of detail the greater will be the efficiency of the dynamo. An improvement has lately been made, in America, in the core of the armature of the Brush machine. It is now built of segments of iron riband instead of solid cast-iron. This apparently trifling alteration enables the machine to maintain sixty-five powerful arc lights instead of forty, as before.

The dynamo may be used in another capacity besides as a produce of currents—viz., as a motor; its action is reversible. This fact is of extreme value to the motive power of the future. We can use one dynamo to produce currents, or we may send those currents into another dynamo close by, it may be, or many miles distant, and thus set the second dynamo in motion. The results which are likely to follow from this fact will aid the strong

tendency of science to annihilate space and time. We now convey our coal laboriously from Newcastle to work our gasometers in London; but coal in the future, as it lies in the seams, will light our cities, and work our factories, and drive our locomotives; and when we have exhausted our coal-mines, we can harness to our electric motor the endless forces of waterfall, wind and wave. It has been said, on the highest authority, that there is more power running to waste in the Falls of Niagara than would be required to perform the whole mechanical work of the world. We are far as yet from realizing its importance as a universal engine, but even now its use is not quite ignored. A dynamo in a mill at Niagara supplies the electricity to work 3,000 telephones in 300 cities and towns (500 of the instruments being in Buffalo, twenty-five miles from the Falls). This takes but a fraction of its powers indeed, but the successful adaptation of this minute fraction may suggest the use of a little more of its energies to supply light and power around the States.

In the electric storage battery we have a valuable helpmate to the dynamo. In the dynamo, when used alone, we have electricity evoked for our instant use; in the storage battery we have means of storing up the energy of the dynamo, and therefore rendering those various forms of energy which are intermittent and uncertain in their action a useful and reliable source of power. For private-house lighting, the use of these electrical accumulators is almost indispensable. For instance, if a dynamo machine alone is used to light a house, light can be only obtained while the dynamo is actually working. Most people would object to keeping a steam-engine at work all night. If, however, the energy of an engine and dynamo is stored at a time of day that is convenient, the electric light can be switched on at any time of the night we choose. It is possible to have electric night-lights; we can have the switch which completes the circuit, if so we choose, beneath our pillows. The use of storage batteries also ensures an absolutely steady light so essential to the eyesight. The principle of the storage of energy is very simple. In order to store energy, work must be done against some force which opposes our efforts, and the action done must be one that is reversible. We can do work against mechanical force or chemical force, and in both these cases store up energy. Numerous examples of such storage of energy will at once present themselves to the mind, such as a raised weight, a stretched bow, the wound-up watch spring—*i.e.*, mechanical energy; a lump of coal, a piece of zinc, a mass of gunpowder—*i.e.*, chemical energy; in all these cases work has been done against opposing forces. It was an effort for the hand to draw back the string of the bow, and by the exertion the individual lost so much muscular energy.

What he has lost remains stored up—in more technical language, “latent,” “potential”—in the stretched string. And the flight of the arrow when released represents the actual mechanical energy of his arm once more converted into the energy of motion—kinetic motion. Then take the case of the zinc: when found in the earth the zinc was in combination with oxygen, atom of the one linked to atom of the other. By certain processes the zinc has been separated from the oxygen, and ever since atom was torn from atom there has been a tendency for them to recombine. By this separation energy is stored up; give the separated atoms the opportunity and they will recombine. When in the voltaic cell, as described above, the zinc combines with the oxygen of the dilute acid, we have an example of such a chemical reunion. The energy which has been stored up in the zinc becomes apparent in the external circuit, either as light, or heat, or in the ringing of a bell, or the movement of a telegraph needle, according as we present to it the opportunity of displaying itself under any of these aspects.

The so-called electric storage battery is an example of chemical storage. By a current of electricity we separate atoms before closely united by the tie of chemical affinity. While separated, these atoms represent a store of potential energy which becomes again active when we allow the separated atoms to reunite. Coexistent with the chemical energy of reunion we have electrical energy. It is thought by many that the storage battery is a new invention; it is true that it has been only lately developed into a practical form, but we should remember that the various achievements which can be accomplished by the storage battery of the present time, are the fruit of seedlings sown long ago. Ritter, in 1803, constructed a secondary or storage battery, using platinum as the plates. Sir W. Grove, forty years later, somewhat extended these experiments. There is an instrument, known to many, called the voltameter. It is used in the laboratory for the decomposition of water into its constituent parts—oxygen and hydrogen. It consists of a glass vessel in which there are two platinum plates immersed in acidulated water. When these platinum plates are placed in connection with the poles of a chemical battery, the acidulated water is decomposed by the current, and the resulting gases may be collected at the platinum plates. Now Sir W. Grove found that while the two platinum plates were in this dissimilar chemical state—one plate being covered with a film of oxygen, the other with hydrogen—if the plates were connected together by a conductor of electricity, a current of electricity flowed along the wire in the opposite direction to the current which was originally used to decompose the acidulated water. A series of voltameters in this

condition, coupled up in the manner of an ordinary voltaic battery, was able to produce a current of considerable strength. Ritter and Sir W. Grove, therefore, were the first pioneers in developing the electrical storage of energy. Practical adaptation, however, always lags far behind theoretical discovery, and it was left for the ingenious mind of Monsieur Planté to translate mere laboratory experiments into a practical commodity. In 1860 he constructed his storage battery. In this two sheets of lead are rolled up and immersed in weak sulphuric acid. The lead plates take the place of the platinum used in the voltmeter experiments of Sir W. Grove, and under the action of the current they too become covered respectively with films of oxygen and hydrogen gas; while in this condition chemical energy is stored up which can be converted into electrical energy when the plates are connected together. If the cell be then charged again in the reverse direction, more gas will be absorbed by each plate, and after the repeated process of charging and discharging in opposite directions, the surface layers of the lead plates become in an extremely porous condition. The process of forming the cell essential to the Planté battery was improved upon in the happy idea hit upon by Mr. Faure in 1880. He coated the surface of the plates with red lead, thus expediting the formation of the battery. A still further development of the storage cell is to be seen now in the Faure-Sellon storage battery, which has already gained considerable popularity, not only in the form of cell used for the lighting of buildings, but to supply the current for locomotive purposes. It has already found its place on tramcars, and in one or two cases it has furnished the current to propel an electric boat. Having now dwelt upon the various ways in which electricity can be generated, transmitted and stored, it is time to consider how its transformation into light is accomplished.

There are three kinds of electric lamps before the public at present. These are popularly called (1) the arc lamp; (2) the incandescent lamp; (3) the semi-arc and incandescent lamp. The difference between them is not one of kind but of degree. The light of all electric lamps as of all artificial luminaries, whether candle, oil, or gas, is due to incandescence—*i.e.*, solid matter in a state of ignition. In electric lamps the light is due to the opposition which a conducting body presents to the current. In the arc lamp the resisting material is twofold—carbon and air. The carbon points, after being made to touch, are separated a short distance, and the air completes the circuit. To the air it owes its name of "arc," namely, the shape which the incandescent air and vaporized carbon assume. The discovery of the arc light is usually ascribed to Sir H. Davy in 1805, but some ascribe its

origin to Dr. Watson in 1746; others, to Etienne Gaspard Robertson in 1802. The arc light exhibited by Sir H. Davy at the Royal Institution was maintained by the powerful battery of 2,000 elements, which in the hands of that distinguished investigator became a revealer of more than one of Nature's secrets. Shortly after the production of the electric arc, this same battery, in the hands of Sir H. Davy, decomposed potash and soda, and thus added to the list of metallic elements—potassium and sodium.

In incandescent lamps there is one continuous filament of carbon raised to a white heat by the passage of the electric current through it. This filament of carbon is enclosed in a glass globe which is exhausted to a very high degree of air. The filament in the lamps of various inventors is of different materials and shape. For instance, Mr. Edison uses Japanese bamboo, Mr. Swan, cotton thread, Mr. Maxim, cardboard, Mr. Lane-Fox, bass-broom. These are examples of the earlier forms of electric incandescent lamps, which, notwithstanding the claims of younger rivals, still hold their own in the market. As examples of the latter types of lamps, one may mention (1) the Woodhouse and Rawson; (2) the Bernstein. Messrs. Woodhouse and Rawson claim a high efficiency for their lamp; they base this claim upon the fact that their carbon filament consists of a pure deposited carbon, and assert that this form of carbon gives a far higher efficiency than one that is formed from a fundamental substance. This idea of depositing pure carbon for this purpose, by means of an electric spark, seems due to Mr. J. M. Boulton in conjunction with Mr. I. Probert and Mr. A. Soward, who a year or two ago took out a patent.

This method of preparing carbon filaments is very interesting and suggestive of many variations. In some of the older forms of incandescent lamps, carbon deposited from gas had been employed, to render filaments prepared from some fundamental substance, such as bass-broom, more homogeneous, and the idea occurred to some of depositing the carbon upon a metal, and then deflagrating or dissolving away the metal. The presence, however, of a metal is not necessary. If a globe of glass or other suitable vessel is filled with a carbonaceous gas, or vapour, such as marsh gas, and the gas thus introduced is decomposed by the passage of electric sparks through it, a slight deposition of carbon takes place upon the end of one of the electrodes; this deposit is by degrees built up, by a rapid succession of sparks; a bridge of carbon thus spans the space separating the electrodes, which latter may be two pieces of platinum wire. Such a carbon is unsurpassable in purity, and as the filament has been built up by the agency of the current, its molecular construction is such

that the action of electric currents through it does not produce disintegration. The filaments are rendered comparatively thick or thin by regulating the size of the spark and the degree of rarefaction of the gas. Good results are said to be obtained from filaments 1,000th of an inch in thickness. Whether such lamps as I have described above are in every respect superior to those which have a fundamental substance, is a question for time and experience to answer. The question is often asked, which is the best incandescent lamp? It is very difficult to give an answer. Uniformity in manufacturing is the great desideratum in incandescent lamps, and to decide fairly upon the merits of any given maker, one or two thousand lamps have to be tested. Again, the younger lamps have not yet had time to prove a superiority in lasting power.

In the Bernstein lamp, which professes to be a high candle-power lamp and more especially adapted for street lighting, the old plan of the fundamental substance is followed, the substance carbonized being a thin hollow silk ribbon. This gives a large illuminating surface, and it is in this respect that it differs from all other forms of incandescent lamps.

The chief feature which distinguishes the incandescent lamp from the arc and semi-incandescent lamps is that the incandescent lamp is enclosed in a vacuum. The exhaustion of the glass globe which contains the filament of carbon is essential. If the current were passed through the filament of carbon before the globe is exhausted, there would be no electric light; the filament would be immediately destroyed by its combustion with the oxygen of the air. Sometimes an incandescent lamp is cracked to so small an extent that it would be only through a microscope that the damage would be discernible. The oxygen would, however, all the same find its way to destroy the filament.

From this, it stands to reason that the more perfect the vacuum the longer the filament will survive. It was the discovery of the method of obtaining comparatively high vacua by the use of the mercury-pump that made the incandescent lamp a practical commodity. In theory it had existed for some years back. As long ago as 1845, King patented carbon lamps *in vacuo*, and it was the imperfect nature of the vacua then obtainable that made the discovery of little value. It is principally to the researches of Mr. Crookes that we owe the attainment of high vacua, containing not more than a millionth of the normal amount of air.

The instrument called Crookes's radiometer is an instructive one. It consists of a glass globe exhausted of air as far as is possible with our present instruments. Even in this compara-

tively perfect vacuum there is contained in each cubic centimètre no less than 250 billions of molecules of air; a sufficient force of matter to turn round vigorously the little vanes inside the radiometer when the heat rays from a source of light fall upon it. Now it is those active molecules which are so busily employed in turning round the little vanes that are the bugbears to the practical electrician in his incandescent lamp. They sap the life of his carbon filament and place a limit to its durability.

In arc lamps, owing to the air and vapourized carbon forming part of the circuit, and also to the difficulty of adjusting the carbon points, the light is often flickering and unsteady. In the semi-arc and incandescent lamp a more solid medium than air is used as an attempt to rectify the unsteady action. One of the most successful of these is the Sun lamp. In this the carbon points impinge upon a block of marble, which latter becomes incandescent under the intense heat of the arc. It is in fact an electrical lime-light, and would be a good substitute for the usual lime-light apparatus in theatres where the electric light is used for effects; steadiness of light is absolutely essential for this purpose, incandescent lamps would not give sufficient power, and the arc lamp is too unsteady for the purpose. The Sun lamp gives a brilliant white light, resembling the light of the sun more than does any other artificial luminary. Semi-arc and incandescent lamps have not, however, been so widely adopted as the arc and incandescent. The Joel lamp is worthy too of mention. In this, a pencil of carbon impinges upon a steel plate and the carbon pencil is raised to a state of incandescence. This lamp has the advantage of working with a low intensity of current.

At one time the arc lamp was the only practical form of electric light, and it still holds its own in the lighting of large and open spaces. In several cases its intense rays have been most effectual for carrying on open-air work at night. This is a great boon to builders, who can now fulfil their contracts in time by working at night. In war the arc light is invaluable—for search lights—as was demonstrated in the bombardment of Alexandria; for camp lights, as now used in the Egyptian campaign. For several reasons it is not so well adapted for a domestic house light as is the incandescent system. (1.) Its flickering and intensity are injurious to the sight. It is said by some that we need not look at it, but, as Mr. Sprague aptly remarks in his new treatise on electricity, "neither need a moth fly into the flame, and light draws the eye to it as the flame does the moth." (2.) Its somewhat ghastly effect. If the light of the arc lamp proceeded *alone* from the incandescent carbon points we should have a light whiter than sunlight; but the light of the *arc* itself

consists in part of blue and violet rays, from its specific gases, which give it a glitter so well described as "steely" by the author I have just quoted above.

While mentioning one drawback to the employment of the arc light—viz., its unsteady action—it is only fair to note the rapid improvement in this respect in the last three years. To realize this it is only necessary to recall the first exhibition of electric light in this country at the Crystal Palace, and compare the arc lamps then exhibited with those now to be seen at the Inventions Exhibition. In the mechanism for regulating the position of the carbon points the great desideratum is simplicity combined with efficiency. The Pilsen lamp perhaps fulfils these two conditions better than its contemporaries.

I will now endeavour to point out the advantages which, as a domestic light, the incandescent lamp possesses over every other form of artificial light. They are many. The most important perhaps is its sanitary claim. Firstly, it is the only artificial light which does not pollute the atmosphere by its use. In the case of gas each added light means an increase of carbonic acid gas—lung poison, and decrease of oxygen—the support of animal life. This lamp leaves the air as it found it; fifty lamps have no more effect upon the chemical properties of the air than one. This is an incalculable benefit to humanity—a triumph in the science of hygiene. People little know what prejudicial influence they sustain from the heated and vitiated air of theatres, churches, and other public places. The giddy oppression and general uneasiness ensuing upon the attendance at a ball are not the consequences of the essentially wholesome exercise of the waltz, but of the carbonic acid poison with which the lungs of the guests have been fed throughout the evening.

The second great advantage of the incandescent lamp is the small degree to which it heats the atmosphere. An incandescent lamp gives only one-tenth the heat of an equal gaslight. The Criterion Theatre, in its old days, afforded an atmosphere which will still be remembered by many as intolerable. Since the introduction of the electric light it is one of the most comfortable and airy theatres in London in all seasons. The manager claims that on one day last summer the thermometer registered higher outside the theatre than inside. Light is one of man's greatest needs, mental and physical. The adoption of a light which in a great degree fulfils the conditions of sunlight, promises to the human race unprecedented health and spirits. It has been noticed that in factories where the electric light is now employed there has been a marked increase in the healthy high spirits of the men and women employed—now fed by a healthy atmosphere, devoid of the poisonous products which gas sheds around

it; those poisonous products which are so destructive to many of our belongings. They tarnish our gildings, blacken our ceilings, and damage the bindings of our books; but incandescent lamps, burning in a vacuum, can work no harm outside themselves. The absolute white colour and steadiness of these lamps is invaluable to the eye, and for the illumination of the objects upon which the eye may wish to rest. The eye is not the only sense which benefits by the use of the electric light; the ear does also. It is well known that sound travels at a different rate through different media. In air it travels at the rate of 4,092 feet per second, and in carbonic acid gas at the rate of only 858 feet per second. Now a row of gas footlights in a theatre throw up a screen of carbonic acid gas—this sound-delayer between the voices and the audience.

The third great advantage is its independence of surroundings. The incandescent lamp will burn as brightly beneath the surface of water as above. This will be a boon to the diver in his submarine explorations. He may thus carry his lamp with its brilliancy unabated many fathoms deep. Against danger of fire this lamp is our surest safeguard. If the globe in which the incandescent filament is enclosed is broken the light is extinguished by the instantaneous combustion of the filament. Therefore it is practicable to place the incandescent lamp with impunity amongst the most flimsy curtains, in spirit vaults, gunpowder magazines, and in coal-mines. If a lamp which is lit is wrapped in muslin and then broken the light goes out and the muslin is unscinged. Explosions in coal-mines are still so frequent as to remind the inventor that science has not yet done her best to lessen their occurrence. It is, I think, to electricity that we must look for aid in preventing these disasters. For an electrical miner's lamp to be practical it is necessary for the miner to carry with him his source of electricity as well as his lamp, and the difficulty is to obtain a primary or storage battery, combining compactness, lightness, and efficiency. A run of some twelve hours without recharging is required, and a battery small and light enough for this purpose has yet to be developed. Mr. Swan and M. Trouvé are working in this direction. The philanthropic object ought to stimulate many others to produce what may reasonably be considered to be within the range of possibility. It would be folly to say that there is absolutely no danger of fire from the use of electricity. Thus, if overheated by too powerful a current, the wires which convey it to our houses become in themselves a source of danger. Electricians guard against this danger by the interposition of safety fuses in the circuit. These are made of substances which fuse at a much lower temperature than the conducting wires, and thus cut off a too powerful current.

There is another contrivance called the magnetic cut-out. It acts most accurately. Its action depends upon the attraction of an electro-magnet upon its armature. The armature carries two arms which usually dip into mercury cups. This forms part of the circuit. When the armature is attracted the contact of the arms with the mercury is broken, and consequently the circuit. The ease with which the incandescent lamp adapts itself to ornamentation has been well displayed in the various electrical exhibitions. A pretty idea has been lately executed for ball-room decoration. The plants and flowers which on those occasions often abound, of themselves form the supports for the lamps, and the close vicinity of light and colour is extremely beautiful. When once properly installed in a house the electric light is very easily managed. The switches which are used to close the circuit are now manufactured in much variety. There has been much needless alarm concerning the possibility of the inmates of a house lighted by electricity receiving dangerous shocks from the conducting wires. These fears have been based upon one or two fatal accidents. It is possible, however, to light a house completely by currents of so low an intensity that the conducting wires might be grasped with perfect impunity. It would be hardly right to have dwelt so long on the value of the electric light in our homes without saying a word or two on the subject of cost. It is a difficult task to consider this question in a few words, so much depends upon surrounding circumstances. I will not attempt to quote a number of statistics. Figures are often misleading—often, like a shower of gold-dust, they glitter as they blind. Besides it is an unfair comparison to quote the cost of gas against electric light, because these two illuminants are not on the same footing at present. Gas is supplied to us from a central station, and all benefit financially in being subscribers to a general source. In the case of electricity, unless the user happens to be under peculiarly advantageous circumstances, he is much in the same position as one who has to supply his own gasworks on the premises. In this case naturally the cost of electric light does not compare favourably with gas. Before electricity will be a cheap light it must be supplied from a central station, and when the expense of a central station is divided amongst the subscribers, then it will be possible to estimate what that expense is compared with its rival. There is but little experience, however, in large installations, and some that are now in progress will be watched with great interest. What can really effect the introduction of these central stations? It is not likely that they can be numerous until there is a greater desire on the part of the public themselves for this advantageous illuminant. Supply is always regulated by demand. The universal demand of the public has not yet been realized.

It must, however, surely come at last. It were folly indeed for the children of civilization to reject one of its offsprings, a pure and wholesome illuminant. The depression which lately fell upon the electric-light trade has surprised and disappointed many who placed their faith in the new illuminant. It is, however, not difficult to trace its cause. It was a necessary consequence of a period of excited and reckless speculation. The sudden development of electrical appliances turned many a brain. Company after company was speedily formed, some of which undertook to light up the world without experiment, without experience, and in many cases without competent electricians. No wonder it was that money thus invested was money lost; that in the confusion and turmoil of law-suit and litigation, good and indifferent seemed hardly discernible, that the electric light business looked gloomy in the extreme. But even through this depressing period electrical application made steady progress, and after the would-be electricians had disappeared from public gaze, the labour of the patient and persevering remained to regain the public trust.

I mentioned above that there are some cases where persons are advantageously placed with respect to the electric light, and where it can be produced at an almost nominal rate. Owners of waterfalls, for example, have only to use a turbine to work their dynamo, and so pay nothing for their power. Again, in factories where steam-power is at hand, a fraction of the power may be utilized to produce the light. On this principle many large steamships are fitted with incandescent lamps. There is a proverb which tells us to kill two birds with one stone. I used to know an Oxford tradesman who did this very aptly. The steam gas-engine which ground his coffee by day lit up his shop by night with electric light. Such is the progress of electrical knowledge, a progress which nothing can arrest, and for this reason: it is a consequence of the evolution of the mind of man, which, as it develops, grasps the proportion of Nature's many sides, the mind then too vibrates in harmony, and finds its power in the unity between mind and matter. In the infancy of civilization, man knew Nature only through the medium of his senses as far as he could see or hear, and thus was his power limited. Now his subtler intellectual sense is revealing to him the atoms of which all is built and their functions—a knowledge potent with possibilities. Space shall he annihilate: as Tennyson says in his "In Memoriam," "nothing stands." Nature evolves in poetic unity before our gaze, and our knowledge grows from more to more.

ERIC STUART BRUCE

ART. VIII.—THE INDIAN REVENUE AND INTOXICANTS.

THE Indian revenues have frequently been called inelastic, but the experience of the last few years indicates that such an epithet is not altogether deserved. The excise revenue, in particular, has exhibited a remarkable elasticity, and is still capable of indefinite expansion. The net excise revenue for the whole of India exceeds two and a-half millions sterling; in the Province of Bengal alone the revenue has risen from £694,457 in 1879-80 to £951,648 in 1882-83. In another decade it will probably rank in importance with the revenues from salt and opium—that is to say, it will not be less than six millions sterling. Some account of this revenue, of the excise system and administration, and of the various excisable articles in the Province of Bengal, may not prove uninteresting to English readers.

Excisable articles include spirituous and fermented liquors and intoxicating drugs. Spirituous liquor includes what is imported into India as well as what is manufactured in India by any native process of distillation. Fermented liquor includes malt liquor of all kinds, the sap or juice of any kind of palm-tree, and pachwai, which is a sort of rice-beer. Intoxicating drugs include opium, ganja, bhang, and all preparations and admixtures of the same.

The most important branch of excise is what is called country spirit, or spirit distilled according to the native process. In some localities it is distilled from rice only, in others from sugar-cane molasses only, or sometimes from an admixture of both. In Behar, Chota Nagpore, and parts of Bengal, it is made from the fruit of the mohwa-tree. There are two systems for levying the revenue from country spirits, one being called the sudder distillery, and the other the outstill system. Under the former, all liquor is manufactured in a Government distillery under Government supervision, and duty is levied on the spirit, according to its strength, as it is passed out from the distillery to the various places for retail vend. Under the outstill system, the right to manufacture and vend within a certain area is put up to auction every year. The outstill-holder pays his monthly fee and may distil as much liquor as he pleases between sunrise and sunset. Under this system liquor can of course be sold more cheaply. No duty is levied, there are no underpaid Government officials to fee, and the expense of carting the liquor long distances from the sudder distilleries to the retail shops is saved.

It is now almost universally admitted that the outstill system is the better. Any evils that may have arisen have been due to its abuse or faulty administration, and not to the system itself. The object is to establish only just so many outstills as are sufficient to supply the *bonâ fide* requirements of consumers. In some districts this number had perhaps been exceeded, but year by year faults are being eliminated, and the system is now almost as perfect as it can be. There were 6,284 shops in 1880-81, 5,780 in 1881-82, and only 4,560 in 1882-83. The Board of Revenue have laid it down as a general rule that there should be only one outstill-shop for an area of twenty square miles and a population of 10,000. This number is of course exceeded in municipal and very populous tracts, but English readers will probably be surprised to hear how few shops there are even in large towns. The town of Bhagulpore in Behar has a population of 60,000, and yet it contains no more than seven outstill-shops. In the town of Burdwan six shops serve a population of 35,000. In Manchester, seven or eight years ago, the number of public-houses was 483, or one for every 743 of the population, while the number of beer, wine, &c., houses was 1939, so that the number of places for the sale of intoxicating liquor was one for every 148 of the population! Over the whole of England the number of public-houses varies from 55 to 69 to every 10,000 of the population; in Bengal the number does not exceed four.

Liquor was dearer under the distillery system; but, owing to this very dearness, illicit distillation prevailed to a large extent. Many vendors merely took out licenses to cover their illicit dealings. Now each outstill vendor is an interested amateur detective, and illicit distillation has almost disappeared. Liquor has been cheapened, and there is no longer a sufficient inducement for illicit distillation. Drinking has perhaps increased, owing to the cheapening of liquor and greater facilities for obtaining it. But such increase is by no means altogether attributable to the extension of the outstill system. Of late years there has been a remarkable increase in the prosperity of the people, who have had more to spend on luxuries of all sorts. The consumption of intoxicating drugs has at the same time increased—good crops and the increased wages of labourers have not a little to do with the result. Some officers have reported that outstill liquor has to some extent displaced the consumption of deleterious drugs, which is a matter for congratulation. One collector, writing on the subject,* says, "Prosperity leads people to some sort of intoxicating liquors or drugs, and I think that if they would

* "Bengal Excise Administration Report for 1882-83."

take to drinking the weak country spirits rather than to smoking ganja or eating opium, they would not lose much in health and in wealth." Another officer remarks that the census shows a large increase of population, and therefore some increase in the consumption of liquor must be expected. Again, licit liquor has taken the place of illicit liquor, and it is impossible to know what was the extent of illicit distillation when the distillery system was in force. For every detected case, probably twenty went undetected. Another collector writes as follows :—

I am persuaded that much of the well-meant agitation against the outstill system, promoted by missionaries and others, is due to a confusion between cause and effect. *Post hoc, ergo propter hoc* is their cry, and they attribute to the outstill system the increase of drunkenness, which is due to good times and low prices. Some evil is inseparable from this branch of the revenue, but it is at least better that the State should obtain its quota of the profits on every gallon consumed than that the miserable farce should be kept up of a sudder distillery—generally a mere pretext for illicit operations.

The correctness of these observations is borne out by the returns from the areas, which are still supplied from sudder distilleries. These returns show that the increase in the consumption of liquor in such areas has been very considerable, and instances are specified in which such increase has been larger than that in adjoining areas supplied from outstills. There can be no doubt, therefore, that a large increase in the consumption of liquor has taken place altogether independently of any operation of the outstill system.

The educated, upper, and middle classes do not as a rule drink ; the consumption of country spirits in Orissa and the greater part of Bengal is almost entirely confined to the lower classes. For instance, the cultivating castes (forty per cent. of the population) do not drink at all. In Behar, drinking appears to have spread upwards a little more, but the chief drinkers still belong to the lower castes. From the Fifth Report of the House of Commons it is clear that among these classes drinking was very prevalent in the year 1805. Drinking is by no means a product of English rule. In a country like India, where intoxicating drugs grow wild, and the means for distillation are everywhere at hand, an excise system is a stern necessity. From Behar right across Chota Nagpore and the Sontal Pergunnahs to Western Bengal there are vast mohwa forests. Palm-trees abound in all districts, and rice is of course what bread is in England.

In India the lower classes appear to drink with the object of getting drunk, or at least of arriving at a pleasing state of semi-intoxication. If a man has hitherto been able to arrive at this

state by an expenditure of say two pice (three farthings), and he afterwards finds that the liquor purchased for this sum does not produce the same intoxicating effect as heretofore, he feels he has a genuine grievance against the liquor-vendor. It is believed by many that the consumption of liquor or drugs is necessary in a malarious and fever-stricken country like Bengal. Those who do not drink appear to eat opium or smoke ganja, and some of the labouring castes both smoke ganja and drink liquor. As a general rule, it may be said of the outstill liquor, that the classes who were always addicted to it, have perhaps been enabled to drink a little more owing to its being cheaper; and for the same reason some drinkers have abandoned *pachwai* and toddy for country spirit; but the commission which has lately been inquiring into excise matters, has ascertained that its consumption is not spreading to classes that were heretofore not in the habit of taking it. Those among the upper and educated classes who drink, consume cheap brandies and other imported liquors. These cheap wines and spirits probably do more harm among the Babu class than country spirit does among the lower classes. The collector of customs has informed me that certain cheap brandies are imported, which, after payment of transit, customs duty, and all other charges, are actually sold in Calcutta for eight to ten rupees (sixteen to twenty shillings) a dozen! It is a pity the agitation against outstills does not give way to an agitation against the importation of such poisonous stuff!

The revenue from *tari* or toddy is derived from the fees paid for licenses which are granted to tap the juice of the palm-tree. The sale of toddy is almost entirely in the hands of one caste, the *Pasees*; in Orissa, where only date-palms are tapped, the business is in the hands of the *Chamars*. The trees belong to the owners of the land, generally Zemindars, and Pasees have to arrange with them for leases. The Zemindars are constantly enhancing the rents for such trees to the detriment both of the Pasee and the Government revenue, for the more the Pasee has to pay in the shape of rent for trees, the less he can afford to pay as fees for the right of retail vend. The consumers of teree are principally Musulmans and low-caste Hindoos. The higher classes of Musulmans do not as a rule indulge; while no strict and orthodox Musulman will touch liquor and thereby disobey the prohibition contained in the Kurân. The juice, in its unfermented state, is a pleasant, refreshing, and harmless beverage; but the vendors often mix drugs with it in its fermented state, in order to make it more intoxicating for consumers. This they especially do during celebrated festivals, such as the Holi and the Mohurram. Many persons had alleged that drugs were

mixed with country spirits; but this is one of several theories that have been exploded by the inquiries of the late excise commission. Harmless spices of sorts are mixed with country spirit merely to improve its colour, smell, and taste. It has, moreover, been shown that the majority of those convicted for drunkenness *have got drunk on taree, and not country spirit!*

Pachwai is a sort of mild beer made from rice, which is mixed with water, and allowed to ferment in large earthen vessels. It is chiefly consumed by aboriginal and semi-aboriginal races, and may be called their national drink. Indian literature proves that these wild hill-tribes were inveterate drinkers long before the date of British rule. The object of the Government is to encourage the consumption of so mild a liquor among these men, and to prevent their acquiring a taste for the stronger country spirit. In furtherance of such a policy, they are permitted to brew pachwai for home consumption without payment of any fee. Moreover, outstills are not permitted in the territory occupied by Sontals. The distillery system has still kept the country spirit comparatively dear. It may perhaps be observed that this policy is not quite uniform; for, outside the Sontal Pergunnahs, there are many Sontals, as for instance, in portions of the following districts: Bhagnepore, Beerbhoom, Burdwan, and Midnapore. In these districts Sontals can purchase country spirit for from three pice to one anna (three farthings to three halfpence) a quart bottle. But how weak the spirit is may be inferred from the fact that it takes a whole bottle to make an ordinary drinker drunk, and a Sontal cannot as a rule afford to drink more than half a bottle a day. This cheap liquor is distilled from the mohwa fruit: that distilled from rice and molasses sells in various localities from four annas* (weak quality) to ten and twelve annas a bottle. The number of licenses taken out for the sale of pachwai in Bengal during the year 1882-83 was 2,159, the revenue derived from license-fees being £16,400.

The ganja plant is cultivated under Government supervision by cultivators who hold licenses for such cultivation. They dispose of it to wholesale dealers, who in their turn sell it to retail vendors holding licenses from the collector for such vend. At the time when retail vendors take the drug from the warehouses of wholesale dealers, a duty is levied by Government of Rs. 4 : 8, and Rs. 5† per seer (according to the quality of the ganja). There can be no doubt that this drug is most deleterious to consumers, and a large proportion of the admissions into lunatic asylums is due to excessive ganja-smoking. The object of Government is to increase the price of the article to such an

* = sixpence.

† Nine shillings and ten shillings.

extent as is compatible with safety, having regard to the existing opportunities for smuggling. The administration of the year 1882-83, shows remarkably successful results. The duty was increased by one rupee per seer; and while the receipts under this head increased by £10,700, there was a decrease of 785 maunds* in the quantity consumed. At the same time, although the total number of retail shops was reduced by 217, there was an increase of £4,000 in the amount of license-fees collected; so that the average revenue per maund levied on the drug was £32, as against £26 in 1881-82. Having regard to the pernicious effects of ganja-smoking, some collectors have recommended a still further increase of the duty; but the Board of Revenue have thought it prudent to postpone such a measure for the present, lest smuggling should be encouraged. Untaxed ganja both grows wild and is cultivated in the tributary States of Orissa; and bhang grows wild in many districts. The average area per ganja shop throughout Bengal is now forty-six square miles, and the average population supplied by each shop is about 19,000 to over 21,000.

The Hindoo, as a rule, does not drink—the orthodox Hindoo never. But in India those who do not consume intoxicating liquors, speaking generally, consume intoxicating drugs; and many officers are of opinion that it would be a good thing to substitute the consumption of liquor for that of drugs. In Orissa, almost all classes are opium-eaters; in Behar, the higher castes, such as Brahmans, Babbans, and Rajpoots, are addicted to ganja-smoking. The nature of the climate seems to necessitate the resort to some stimulant: and, from a medicinal point of view, both country spirit and opium are believed to be very efficacious. The same cannot be alleged of ganja, and it is to be regretted that there is no means of putting a stop altogether to the consumption of this drug. If the cultivation under Government supervision were to be abandoned, illicit cultivation would spring up and flourish in a thousand places. Experience has shown in all countries that if preventive measures are pursued beyond a certain point, smuggling must inevitably prevail; and the object of the excise administration is to go as far as, but no further than, that exact point.

The receipts from opium in 1882-83 amounted to £179,592. These are the receipts from abkarre, or excise opium, and have no connection with the imperial receipts from the sales of the opium exported to China. The receipts are made up of the sales of the drug from collectorate treasuries and of the license-fees levied for the right of retail vend. The opium crop is cultivated

* One maund = 80 lbs. avoirdupois.

under Government supervision, the cultivators being bound to bring in the whole produce to the opium agents and their subordinates, who pay them Rs. 5 (ten shillings) for every seer* of the inspissated juice or drug. The duty on the price at which the drug is sold from district treasuries varies from Rs. 22 to Rs. 32; so that the cultivators have a great incentive to dispose of a portion of their opium in an illicit manner.

There are two opium agencies, each under an opium agent, one at Patna in Behar, and the other at Benares in the North-West Provinces. The total quantity of land in both agencies sown with opium in 1883 was 876,454 acres. The total out-turn amounted to 100,889 maunds † of opium at 70° consistence. No compulsion whatever is used to induce cultivators to cultivate opium; the cultivation has hitherto been so paying and so popular that the sub-deputy opium agents have had little or no difficulty in getting as much land cultivated as they require. A crop of Indian corn generally precedes the opium, which is sown in September or October; and often a third crop is taken after the opium. If a cultivator gets only four seers of opium per bigah, that is equivalent to twenty rupees, and then he has in addition the value of his Indian corn. But it is now said that the development of communications throughout Behar has rendered it possible to bring the more bulky forms of farm produce to market at a price which renders them formidable rivals to poppy, and probably sugar-cane and potatoes are now more remunerative crops than poppy. Advances are given to the cultivators for poppy cultivation, and they are deducted from the payments made for produce brought in.

The minimum monthly fee for the retail vend of opium or ganja is five rupees. The retail vendor makes a profit of about five rupees on every seer he sells, so that the selling price varies from about Rs. 27 to Rs. 37; the limit of retail sale at one time to one customer is five tolas = two ounces. The license-fees in India for the retail vend of opium amount in one year to nearly £500,000. Officers who have an intimate knowledge of the people and their requirements think that it would be a hardship to enhance the price of opium any farther. Those who inveigh against the opium revenue forget that opium is in India what brandy is in England. A moderate consumption of it is believed to ward off fever and to be useful in the case of many other diseases. It finds a frequent place in the prescriptions of native physicians, while the British Pharmacopœia itself proves that it is extremely efficacious in a number of cases. The drug is not always smoked or eaten. In cases of cold and ague it is mixed

* A seer = 2 lbs. avoirdupois.

† One maund = 80 lbs.

with oil and rubbed into the body ; again, its external application with other ingredients is considered very useful in the case of rheumatism. The excessive opium-eater is quite the exception : the large majority of consumers take it in moderation and with the firm conviction that it does them good. The same can scarcely be said, or at any rate not nearly to the same extent, of those who drink spirits. The collector of Cuttack writes, in 1883 :—

The people of Orissa are notoriously addicted to this drug [opium]. From the highest to the lowest caste, and without distinction of age and creed, the drug is taken freely by the people ; caste rulers exercise no deterrent influence to check the progress of consumption as they do in the case of spirits. On the other hand, an impression generally prevails that the use of opium has a salutary effect on the health of its consumers, especially during old age. So long as this idea exists in the minds of the people, the revenue derived from opium will always increase as steadily as it seems to have hitherto done.

I remember, when I was sub-divisional officer of Khonda, that a rise in the rate of duty compelled the retail vendors to raise the price by one or two annas a *tola*. Most persistent petitions were presented, complaining of this, and asking that the retail vendors should be ordered to sell at the same price as heretofore. Neither mukhtars (native bar), *amla* (ministerial officers), nor the general public could understand why it was considered necessary to make the drug dearer. Many intelligent men informed me that those who indulged to such an extent as to impair their mental faculties were extremely rare exceptions, and I have certainly never heard of any one going mad from the use of opium. This is what Mr. Grant, who has been collector of all three districts of Orissa, writes :—

The decrease of £419 on the sale of opium is due to the fact that the people are generally getting practised to reduce their daily consumption, owing to the increased rate of duty. I am afraid that this is something very like an unmixed evil. It does not mean that the people are beginning to restrict themselves in the use of deleterious drugs on account of their costliness. It means that owing to the greatly enhanced price of opium the people are substituting ganja, a cheaper and infinitely more mischievous and deleterious drug. I strongly advocate a return to the old rate for opium, not because the new rate has so materially decreased the revenue, but because it is fast driving the people of Balasore to that resort to ganja which we know to be the root of the evils in the Oorya character.

With regard to consumption of liquor *versus* drugs, the same collector writes :—

In both Balasore and Pooree, it is beyond any doubt that the reigning vice is not drinking, but the enormously more mischievous use of ganja. I do not hesitate to say that I most heartily wish that the people would substitute alcohol for ganja, and the only way in which this is likely to be done is by making alcohol easily accessible. It will mark a very great improvement in Orissa when the consumption of ganja is diminished considerably, even if this be accompanied by a considerable rise in the use of spirituous liquors. The consumption of ganja is extravagantly large; that of spirituous liquors remarkably small. The latter might be increased very considerably indeed without causing the least alarm.

Not a word is said against the use of opium.

Mr. Vincent Richards, who has made some minute inquiries regarding opium in the Balasore district of Orissa, is of opinion that the excessive use of the drug by the agricultural classes, who are the chief consumers in Orissa, is very rare indeed. The moderate use may be, and is, indulged in for years without producing any decided or appreciable ill effect except weakening the reproductive powers. It must have a slightly soporific effect, as opium of good quality contains from 8 to 17 per cent. of morphia, the average amount being 10 per cent. Dr. W. Dymock, of Bombay, speaking of Western India, concurs in Mr. Richards's opinion regarding the moderate use of the drug. He believes that excessive indulgence in it is confined to a comparatively small number of the wealthier classes. Dr. Moore's experience of Rajpootana strongly supports the same views. It seems probable that the spread of the practice is connected with the Hindoo aversion to drink, the ban imposed in Mahomedan countries on the use of alcoholic beverages, and to some extent with the long religious fasts of the Buddhists, Hindoos, and Moslems, in which opium is used to allay hunger. In Orissa, opium-eaters take their opium twice daily (morning and evening), the quantity taken varying from two to forty-six grains daily, large doses being the exception, and the average five to seven grains daily.

In China, opium is smoked, in Asia Minor, Persia, and India it is eaten. Its consumption is not altogether confined to the East, for it is eaten both in England and the United States, but more generally smoked in the latter. The number of opium-eaters in the United States has been estimated at 82,696, and the number of opium-smokers at nearly a million. The average amount of opium consumed by each opium-eater in the State of Michigan is estimated at one ounce avoirdupois a week. In India opium is sometimes smoked in the form of a preparation called *mudub*, formed by boiling the opium in small iron pans.

The imperial opium revenue yields on the average upwards of

six millions sterling net, after deduction of all expenses. It is levied in two ways—one, as above described, on the Bengal side, the other on the western or Bombay side, by the levy of duty on the export of the drug made from poppy grown in Native States. If Government were not to maintain its monopoly of opium cultivation, it would immediately be taken up by capitalists, who would supply the wants of China in the same way that Government now supplies them, with the exception that much impure and bad opium would be exported; for it cannot be expected that private manufacturers would have the conscience to refrain from sending out such opium, and thereby incur loss. Government does and can afford to refrain from doing so. All arguments against the opium monopoly appear to vanish away before this simple but incontrovertible fact. The Government in India taxes opium heavily, just as the Government in England taxes spirits heavily. Surely it cannot for a moment be doubted that, if this fiscal burden were removed, the Chinese would get the opium far more cheaply (and therefore presumably in far greater quantities) than they do at present. Neither can it be urged that Government, if it gave up its monopoly, should suppress altogether poppy cultivation; for what Government could venture so far to interfere with the liberties of its subjects? It might as well suppress the cultivation of onions, betel-nut, or tobacco. On this subject Sir Richard Temple has well remarked:—

To abandon the taxation would be to injure the treasury, leaving no check upon the consumption of the drug, but rather giving some encouragement thereto. . . . The culture is very profitable to thousands of cultivators, and as the exportation is still more profitable to traders and capitalists, any attempt on the part of the State at suppression would be futile, and would only lead to dangerous abuses. Nor do the British territories comprise the only area fit for poppy culture, for much of the best soils for the poppy are in the Native States. The question, too, is not confined to the opium exportable to China; the Indians consume opium to some extent, though much less than the Chinese. At present the drug is taxed for the Indians as for all others, a check being thus imposed on the local taxation. In this respect, then, the Government plays, as levying a tax, the same part in respect to its own subjects as the Chinese.*

Opium was commonly used in China as a medicine long before the trade with India commenced. In a Chinese herbal compiled more than two centuries ago both the plant and its inspissated juice are described, and in the "General History of the Southern Provinces of Yunnan," revised and published in 1736, opium is noticed as a common product. At the present time it is

* "India in 1880." John Murray.

estimated that South-Western China produces not less than 224,000 piculs* of opium, while the entire import from India does not exceed 100,000 piculs. The total export of opium from India to China and other places during the year 1882-83 amounted to 91,798 chests (126,789 cwts.), valued at £11,481,376.

The amount of drinking and drunkenness in India is still infinitesimal as compared with that in European countries. Drunken men are seldom seen, and it is a most rare and unusual thing for a woman to drink. During nearly ten years' service, I do not think I have seen more than half a dozen drunken persons on the public roads. Drinking is generally considered a vice—the same stigma does not attach to the consumption of intoxicating drugs—and educated opinion is strongly opposed to any policy the tendency of which is to increase drinking in any shape. It has been said that the wave of intemperance invariably reaches its highest, not when nations are the most highly civilized, but either before they are fairly educated, or during the national decadence. The wave of intemperance appears to have reached its highest in England, and is now receding, as is shown by the diminution in excise receipts. This wave has not reached its highest in Bengal. It is true that among the upper and educated classes temperance societies have been formed, and that they would like to see a system of local management and even local option introduced. But the wave will not recede till primary education has reached the lower castes—that is, the principal drinking classes. In England the worst times for intemperance have not been during the present, but during the eighteenth century, when the people were steeped in ignorance, and even gentlefolk had less education than the artisan of to-day: 1736 is considered to have been the *annus mirabilis* of drink. In that year the consumption of *spirits only* was nearly a gallon per head of the population. In Macfarlane and Thompson's "History of England" (vol. iii. p. 258) and Lecky's "Eighteenth Century" (pp. 476-482) it is stated that announcements were hung out before the ginshops informing passers-by that they could get drunk for a penny, dead drunk for twopence, and that when they were in the desired state, clean straw would be gratuitously provided for them in convenient cellars! The *annus mirabilis* of drink in Bengal has probably still to come, but the disease will not be very acute, for the reasons above alluded to. It is probable that, for some years to come, more money will be spent on drink, but that is because there will be more money to spend on luxuries generally. In 1860 the expenditure in the United Kingdom

* A picul = 133½ lbs.

on intoxicating liquors was £84,222,172, or £2 18s. 6½*d.* per head of the population; in 1870 it had risen to £118,836,284, or £3 16s. 2*d.* per head; and in 1876 to £147,288,759, or £4 9s. 0¾*d.* per head. Referring to these figures, the Select Committee of the House of Lords on Intemperance* remarks:—

This increase of expenditure cannot by itself be taken as a proof that drunkenness has increased in the same ratio. It is probable that a large portion represents the moderate consumption by the temperate. With increasing incomes the spending power of all classes has grown, and a higher scale of comfort has been gradually introduced. Just as the consumption of meat has increased, so has that of intoxicating liquors, but in neither of these cases does the increased general consumption necessarily imply a proportionate excess on the part of individuals. Further, it has been shown that the use of tea, sugar, wine and tobacco has increased far more rapidly than the use of spirits or beer.

These remarks are to some extent applicable to the increase in the consumption of drink in Bengal during the past five years or so.

As I have said, the amount of drinking and drunkenness in Bengal is still infinitesimally small when compared with European countries. The incidence of the excise revenue varies in different divisions of the Province from Rs. 6 to Rs. 16 (twelve shillings to thirty-two shillings) per 100 of the population, and this is the revenue under all heads, including fermented liquors and drugs. It has been said that the excise revenue for *the whole of India* is only two and a-half millions sterling; in England the single item of drink contributes to the revenue from £23,000,000 to £24,000,000 a year. To this must be added £6,800,000 customs duties on imported spirits, wines, &c., making a total of £30,000,000, or nearly ¾ths of the revenue.† There is room for considerable expansion of the revenue in Bengal *without any perceptible increase of drinking or drunkenness*. An able administration of the excise department in any particular district often produces the most brilliant results. Moreover, the increase of wealth and of the material comfort and prosperity of the people makes itself manifest in a hundred ways. This being so, the Government should not be too ready to infer from increased excise receipts either increased drunkenness or even any such increase of drinking as there is reason to regret.

Missionaries, blue ribbonists, Brahmos, and other educated natives sometimes allege that there was no drinking in India before the advent of the British. To refute such an allegation

* "Parliamentary Reports: Intemperance."

† "National Budget," chap. v., by A. J. Wilson. Eng. Cit. Series.

is so easy that it somewhat resembles the process of breaking a fly on a wheel : but it is necessary to do so, as the allegation is persistently iterated in the columns of the native press.

It is quite a mistake to suppose that whites have introduced wine among savages. Drunkenness is essentially a savage vice. Tartar tribes have from time immemorial made an intoxicating drink from mare's milk, called "kooniss." The Red Indian tribes have always drunk, while consumption of the juice of the palm-tree is immemorial, both in Asia and Africa (Herodotus, iii. 20-22).

Untutored races have never been slow to discover intoxicating beverages. Barley and other cereals were used long ago. We have instances in the Hebrew Scriptures, such as that of Noah. The monuments of ancient Egypt are covered with representations of vineyards and wine-presses. Confucius (478 B.C.) partook liberally of drink ; Mencius mentions drink as one of the vices of his day (288 B.C.). Gautama Sakya (540 B.C.) enjoined on priests total abstinence from intoxicating drinks. Brahmanical writings show that the god Indra was to be propitiated and made intoxicated with unlimited offerings of brandy ; the nature of the deity was but a reflex of the character of his worshipping multitudes. The Rig-Veda abounds with references to the drinking proclivities of the deities, especially of Indra — *e.g.*, "Come hither, O Indra, and intoxicate thyself." Both "soma" and "sura" are mentioned in the Vedas. From the later Sanskrit literature it is clear that, though Manu forbade drinking, intoxication was still rife among the Aryan races. Palastya mentions twelve kinds of liquor as being made from the grape—honey, sugar, dates, the palm, pepper, rice, &c. Large quantities of foreign wines were imported into India 2,000 years ago, such as the wine of Laodicea in Syria, Italian and Arabian wines. There has always been much drunkenness in India in connection with religious observances. (See description of Holi, in "India and its Native Princes," by Louis Rousselet, p. 175.)

The reports of collectors and district judges, published in the Fifth Report of the House of Commons, show that the lower castes had, from time immemorial, been addicted to drink, and in the year 1805 the increase of crime was attributed to the increase of intemperance. At the present time the excise administration is keenly and jealously supervised. Shops are never established except after a *bond fide* demand has made itself known, and every attempt is made to keep the price of liquors and drugs as high as is safe and compatible with the prevention of smuggling. In November, 1883, the lieutenant-governor of Bengal appointed a commission to report if drinking or drunkenness had increased, and the best means of checking its increase. The report has

been presented, and doubtless such action as is necessary will be taken on it. This is only one instance out of many in which the Government of Bengal has shown itself prompt and ready to inquire into the existence of abuses in any and every branch of the administration, and to remove them if they exist.

H. A. PHILLIPS.

ART. IX.—ON THE FORMATION OF KNOWLEDGE.

1. *Essay on the Connection of the Soul with the Body.* By Rev. JOHN WALKER. London: Richardson & Son.
2. *Essay on First Principles.* By Very Rev. JOHN CANON WALKER. London: Longmans, Green & Co.
3. *Essay on the Origin of Knowledge.* By JOHN WALKER. London: Richardson & Son.

ONLY a few years ago, in a back street of an out-of-the-way part of the town of Chichester, there lived an elderly man of singular habits. He resided in a fair-sized old-fashioned house entirely by himself. Not even had he a servant resident on the premises, but depended on such assistance as he had from without. He was a man of good family, of the most gentle, refined manners, and of accomplished education, a man of learning in theology and philosophy, and a musician. But he was of a shy retired nature, and the way in which he lived was very fairly descriptive of his character. His conversation, especially on great subjects, was so full of thought and learning that it was a great enjoyment to be in his company. But it was an enjoyment not easily accessible, except for a short time and to a few friends. If by any chance he could be caught at the piano, playing one of Beethoven's sonatas, the feeling and expression that was thrown into the piece gave a new meaning to it, which clung to it ever after; but when the performer became aware of the presence of another person, after finishing up with a few notes, he gently made some excuse for not continuing, and then skedaddled.

Six years ago his health began to fail, and he felt that he should not live through another winter; yet there seemed no reason why his life might not be prolonged if he could only be persuaded to take the necessary means and precautions. His friends were most anxious that he should go to the South of France, but he could not be moved, and it was as he said. He died on Thursday, September 26, 1878, leaving behind him in the

way of writings the three little *brochures*, the titles of which we have given. Yet John Walker was a man of so much learning and depth of thought in philosophy that it is a real loss to the world that he did not write more. Could his life have been sustained for a year longer, the Encyclical of the Pope to encourage and recommend the study of St. Thomas Aquinas would have surely given him a new zest for life, and probably therefore a longer continuance of it; for no living man probably knew more of St. Thomas's philosophy or lived more in it than Canon Walker. The present writer rejoices in an opportunity offering itself for perpetuating the memory of so remarkable a man, and of bringing into greater notice the little, but valuable matter, he has left behind him. He has a grateful remembrance of him, not merely as a friend, but because through his writings he had the pleasure of finding support and authority for his own convictions on the subject of human knowledge. He proposes in this paper to set forth, with the support of Canon Walker's quotations and explanations of St. Thomas, the facts, rather than any theory, of human knowledge, as they may be observed by those who give careful attention to the subject.

Canon Walker's Essay begins by an inquiry into what St. Thomas taught concerning the origin of ideas. "Of late years," he says, "there has been shown some desire to maintain that he did not differ from that school of philosophy which is commonly known by the name of idealism, and is chiefly derived from Plato and Descartes." He proposes therefore, as the most natural and safe way of inquiry, to consider, first, the state of the soul at its creation. Here, at the outset, arises the question, "Whether the intellectual soul is in possession of thought antecedently to any influence of the body." Now St. Thomas, as he shows, does not deny the possibility of "infused knowledge;" on the contrary, he believes that the higher beings whom God has created, and whom we call pure spirits, have their knowledge in this way, and it is believed that there have been instances of infused knowledge in men. But he maintains that, in the case of man, who has a lower nature, consisting of body and soul united, this is not, as a fact, the way in which knowledge is ordinarily attained. The soul does not attain it independently of the body, though men have been led to suppose that it did, because our first ideas are beyond the reach of our consciousness, the mind being for a long time too feeble and unformed to enable it to chronicle or to analyze its own ideas.

St. Thomas affirms then [says Canon Walker] that the mind of man is at first a *tabula rasa* without anything on it. This expression *tabula rasa* is justly considered the most perfect symbol of the

Aristotelian school which is opposite to the modern theories of Idealism or Cartesianism.

And in discussing the question whether the soul understands, by means of species naturally imparted to it, or innate, he says:—

Against this hypothesis militates that which the philosopher (Aristotle) affirms in the third book, "De Anima," where, speaking of the intellect, he says that it is like a *tabula rasa*, on which nothing is written.

And in another place St. Thomas quotes Aristotle on this subject, and adopts his view. Canon Walker adds that this view is not without support from other considerations and authorities. There is a similarity between the soul's position as to sensations and ideas. It is "in potentia" as regards both. It has a receptivity or capacity for both. But this expression implies, not that it possesses them in itself, but that it does not; only that it is able or fitted for receiving them from without. No one dreams that the senses possess the objects which they represent or convey to the soul. They are instruments to bring in the sensations from without. In like manner, the mind does not contain ideas, but receives them. The ideas are posterior in nature to the soul which receives them.

The intelligent soul is *in potentia* both with regard to the similitudes which are the principles of sensation, and with regard to the similitudes which are the principles of understanding.

But it is void of them till it receives them. Moreover, it is a matter of observation that the mind does acquire knowledge from material things. "It gathers knowledge from divisible things by way of the senses." "Our soul does not know anything except what has a form in matter, or what may be shown by such as this."* But if the knowledge of the mind is derived from material objects, it is clear that they in no wise pre-exist in the mind.†

But though the mind of the child is at first a *tabula rasa*, yet it does not remain so. For as the plate of the photographer is sensitive to light, and cannot be exposed without receiving impressions from it—as the skin is sensitive to heat and cold and must needs feel them—so is the *tabula rasa* of the mind sensitive to what strikes it. In its earliest existence it has no ideas, nor does it do anything to get them. It simply receives the impres-

* St. Thomas, i. xii. 11, quoted in "Origin of Knowledge," p. 6.

† Locke is generally considered to have established conclusively that there are no innate ideas or principles. Among modern writers, Murphy ("Habit and Intelligence," vol. ii. p. 54) contends that all knowledge has its beginning in experience.

sions that are made on it. We speak of the child "seeing," but we know that the eye is not the agent; it is as a camera, which merely exhibits the images found in it by the light of objects which are without. It sits in its place and receives them. If it is roused to attend to them, it is not by its own energy, but by the impressions themselves. Or we may take another analogy. The stomach which digests our food, does and can do nothing towards procuring the food. Its action begins by receiving, as into a bag, what is poured into it. So the mind begins by passively receiving the sense-impressions brought to it. Hence it is that St. Thomas speaks of the "*intellectus passivus*," because in the first instance the intellect does not act, but is acted on, simply receiving the elements of knowledge which are brought to it.

It will be well to note that what has been said implies that this reception of impressions is not voluntary. The child cannot help receiving them any more than the eye can help receiving the rays of light which strike on it. The mind is sensitive to ideas as the eye is to rays of light. Nature does not run the risk of the intellect not exerting itself to gain knowledge, nor wait till it begins to do so. She begins the process herself. As soon as we come into the light it strikes the eye and creates images on it; and no sooner is the intellect awakened than impressions are made upon it. The eye cannot choose whether it will receive the images that strike it. We can indeed close the eye to the light, or turn it away from seeing things we like not, to gaze on those that please us. But only in this way can we refuse to see what is before us. Like this the mind may learn to turn itself away from knowledge, or to close itself against the impressions that stand at the gate seeking admission. But it wants sense or guile to do this at first, and so Nature makes good her footing and *strikes* it, making impressions on it, and those deep ones too and lasting, the groundwork and foundation of the ideas and principles which are to guide the course of life. The mind receives and suffers these impressions; its skin is tender and sensitive. It needs must. "*Natura*," says Bacon, "*percutit intellectum*."

But whence are these impressions derived? How do they reach the mind? By what means does Nature strike the mind? The mind being immaterial, cannot directly reach material objects or be affected by them. By what machinery, then, are outward objects made to impress the mind? This is done by the senses, which, being themselves material, are capable of being impressed by external objects, and possess the marvellous power of transmitting to the brain in a subtilized state the impressions made on themselves. And thus the intellect, which

has its seat in the brain, receives what St. Thomas calls "phantasms," and what we call "sense-perceptions."

What is the connection [says Canon Walker] of the senses with the intellect? For the senses are representatives of bodily impressions; the intellect apprehends only spiritual objects and has notions and ideas. Besides their own affections, the senses have a further office of sending up, as it were, what are called by St. Thomas phantasms, concerning their own impressions. These phantasms are not material things, but are certain images or likenesses, the result of impressions made on the *imagination*. It is impossible, says St. Thomas (I. 85, 7) that the intellect, according to the state of the present life, in which it is joined to a passible body, should actually understand anything without turning to the phantasms.*

The phantasms then are sensible similitudes. But we need not go to authority to prove this, we have only to observe what goes on in our own mind.

The only alternatives to this view of the origin of first ideas are infused knowledge and inner consciousness. But what ground is there for the supposition of infused knowledge? When is it infused, and what indications are there of the child possessing any knowledge which does not come through the senses? Still less can be said for the supposition of knowledge derived from inner consciousness. For in the earliest years of our life, when knowledge begins, there is apparently no inner consciousness. Children notice things without them, but there is nothing to indicate the existence of a well of knowledge within. There is, however, a good deal to show that all the knowledge the child possesses is from another cause, which we actually see at work—viz., external objects. Whoever will take the pains to watch little children may observe for himself that their interest is excited by anything new, fresh or unusual. Nurses succeed in calming passion and soothing unrest by putting objects before them which strike their senses and so excite their interest. But the children give no indications of possessing ideas that have not been brought to their knowledge by experience. As their intelligence is more awakened they exercise it in putting together and trying to fit ideas of sensible things that have come before them, just as they love to twist about and fit in the pieces of a puzzle. But the pieces must be provided for them. Nothing would give us more surprise than if we found children in possession of an idea that could not be traced to what they might have heard or seen. Parents sometimes say of a child, whence could it get such an idea? Would any of these parents accept the explanation, that the child did not get it from some one else,

* "Origin of Knowledge," p. 12.

or from something it had seen, but from its own inner consciousness? Do they not all hold it for certain that the child's mind has nothing in it that has not been put there through the senses?

Knowledge [says Canon Walker] is not innate, or ordinarily infused, but the first ideas are acquired through the senses, which are the first medium of knowledge; and no truth, however exalted and immaterial, is independent of the senses in the first instance, though indefinitely raised above them by abstraction.*

"The mind,"† says Mr. Murphy, "cannot create ideas, it can only recombine;" and again, "all mental combinations must be the association of ideas already in the mind, because all knowledge has its beginning in experience; the mind, strictly speaking, has no creative power, and can only combine the materials furnished to it by experience. In the present state of psychological science, I think this is unquestionable." Locke says,‡ "He that attentively considers the state of a child, at his first coming into the world, will have little reason to think him stored with plenty of ideas that are to be the matter of his future knowledge. It is by degrees he comes to be furnished with them."

And here it is important to note that Nature not only brings a knowledge to our minds of the external world through the senses, but she at the same time brings home to them the truth of the phenomena that greet the senses and convinces us of the dependence we can legitimately place on what our senses tell us. The theories that would make knowledge depend on the forms or ideas in our own minds, even if such theories could be supported by facts, would be eminently unsettling, inasmuch as they would lead us to question the objective reality of phenomena. But their real objective existence is brought home to our conviction by the fact that all our knowledge of them begins, not with an act of our own, but by our senses being acted on from without. As a blow from a stick and the painful sensation that follows, force men to acknowledge the objective existence of the stick, so all knowledge *begins* in the same way by an impression from without acting on the brain.

It is [says Canon Walker] a consideration of radical importance that knowledge is communicated to man from without, and that things are the measure of his intellect; and although there is always an immanent action of his faculties, yet knowledge is received into his possible or passive intellect by the influence of what is without.§

* "Essay on First Principles." Introduction.

† "Habit and Intelligence," vol. ii. pp. 72 and 54.

‡ "On the Human Understanding," book ii. chap. i.

§ "First Principles." Introduction.

The basis for implicit belief in the objective reality of the external world is supported on the one side by the concurrent testimony of the senses, and on the other by the concurrent testimony of other men. For widely as men differ as to the interpretation of facts, yet they differ so little in the account they give of the impression made on their senses by the same fact, that any discrepancy is considered to be strange, and a thing to be accounted for.*

We have now got so far as this in our inquiry on the origin and formation of knowledge, that it begins by sense perceptions, the reality of which is impressed on us. These are carried up to the mind where they exist as phantasms, the representation of the sense-impressions. The fact of these ideas remaining stored up in the mind constitutes what we call the memory, which does not seem to have the nature of a faculty or instrument of the mind, but to consist in the fact that the impressions abide in the mind, and are thus available for use. So far, however, there is no knowledge. There is simply a heap of ideas, of phenomena, isolated facts without connection or relation to each other, like articles strung together on the same cord, or thrown into the same tub. These ideas or phantasms are representations for the most part of complex ideas; and as they exist in the mind, they are not in the first instance analyzed or resolved into abstract ideas. They stand indeed in close relation to other ideas, but the mind is as yet not cognizant of these relations. This first stage of knowledge is that which the child begins with; but at this stage it is not ordinarily dignified by the name of *knowledge*. For it is possessed by the brute creation, which, equally with ourselves, has an intelligence sensitive to the representations of the senses, and bears them in memory as we do. But unless or until a further process takes place, we do not call it knowledge. It is only a cognizance of bare, naked, unconnected facts.

* It is a singular thing that Bishop Berkeley, who has done more than any one else in disturbing our implicit confidence in the reality of what our senses tell us, should nevertheless make external things, or the impressions made on the senses, to be God's way of speaking to us. It is quite true that when the mind receives an idea through the senses that idea is resolvable into its elements—i.e., simple abstract ideas, which have no external reality; but the compound idea out of which these are obtained, is the intellectual representation merely of something that in the first instance struck the senses from without before it was in the state of an idea at all. "I see a horse," said Antisthenes to Plato, "but I do not see horseness." "True," replied Plato, "for you possess the eye of sense which sees the one, and not the eye of intellect which sees the other." The conviction of external reality borne on the mind, because the senses are impressed from without, is not lessened by the fact that when the impressions are reduced or sublimated into ideas, those ideas can be analyzed and reduced to other ideas.—See Dr. Mansell's "Letters," p. 308.

And here we may, by the way, be allowed to say a word on instincts, inasmuch as sense-perceptions, both in ourselves and the brutes, set instincts into play, though they may not go so far as to create knowledge. For both we and the brute creation possess instincts, but whereas they are principally guided through life by instincts and not ordinarily by intelligent knowledge, we are only guided by instinct in default of knowledge, which, as soon as it comes, leaves instinct behind and often supersedes it. And so we are accustomed to appeal to men to act like rational beings—*i.e.*, not from mere instinct, like children or brutes. The nature of instinct and the way it works is a most interesting and obscure subject, since it shows itself as unconscious knowledge.* Now we are familiar enough with the existence and exercise of unconscious knowledge later on in life when our ways and habits are fully formed, and we act—often doing things intricate and requiring skill—without adverting to what we do.† We are accustomed to explain this by saying that it was done at first by means of knowledge, and it is only now carried on by habit. But in instinct we have the different phenomenon of the agent being excited to action by a sense-perception—a mere impression on the intelligence—without having gone through any previous process of reasoning. Isolated sense-perceptions do not produce knowledge, but they do often call up what we call instincts, and lead directly to conclusions and results that could only be reached through the reason by a long and perhaps laborious process. Is not this in analogy to what we are told takes place in the support and sustentation of the body. In the case of all the higher organisms, this is ordinarily carried on by means of the laborious process of digestion of the substances conveyed to the stomach. These are dissolved into their components, and out of them is compounded the liquid which supplies the blood and sustains the system. But some of those substances which the stomach receives do not, we are told, undergo this process of digestion, but, like water and alcohol, go straight to the blood, the system often requiring some shorter and more ready means of restoration than that of digestion. Do not these last stand in analogy to the sense-perceptions which, without being analyzed and recompounded into conscious knowledge, go straight and at once to excite the action which is needful for the emergency, and do not wait for the tardy and

* It may be, it was to avoid the apparent contradiction of this expression that unconscious *cerebration* has been used of late. This expression is conveniently indefinite, but it does not increase our knowledge.

† As, for instance, when an organist manipulates his instrument, playing a piece of music by rote and talking to some one at the same time.

uncertain effect of thought and reflection? These sense-perceptions, though impressed on the *intellectus passivus*, do not wait for the action of the *intellectus agens*, but produce their effect in the same way as bodily sensations. Canon Walker quotes St. Thomas as asserting "that the intelligent soul is sensitive (*in potentia*) both with regard to the similitudes which are the principles of sensation and with regard to the similitudes which are the principles of the understanding." Now, we are not surprised at sensations leading to immediate actions and results without the co-operation of the reason, for we are accustomed to it. The sight of food excites the appetite of hunger. The roar of the wild beast excites fear and impels to flight. The sight of suffering excites sympathy and pity. May it not be simply an extension of the same system, when the agent is moved or impelled to a special and immediate action by a sense-perception or idea, instead of a bodily sensation?

Let us, however, pass on from the question of instinct to that of knowledge. All knowledge must take its origin from the facts or phenomena that reach the mind by the senses. Yet facts do not of themselves constitute knowledge or science. We do not account the mere reception of impressions by the mind, or even the recognition of them as representing facts, to be sufficient. The mind must "deal," as we say, with the facts, or there is no result. However important it is to build on facts, yet nothing comes of the facts until we have built on them. The facts must be classified and interpreted or they lead to nothing. Every one, even the most absolute Positivist, interprets facts according to some principle or theory. So far from its being any indication of special intelligence to recognize facts and facts alone, we account it a sign of reasoning powers and intelligence in brutes when they draw inferences from what they see. The advocates of science, who set so fiercely on theologians for interpreting undoubted facts in their own sense, yet do so and must do so themselves with respect to the facts of science.

But when we would construct knowledge out of facts, we meet at the outset with a fact which is itself a most embarrassing one. It is this: that the same phenomena seen, if you will, at the same moment and under the same circumstances, produce different ideas in different men. Let us take an instance: A bone is lying by the side of the road. A dog passes by, and the image of the bone being reflected on his eye, instinct leads him to examine it as *something* that may do to eat. His master, a labouring man, sees the same object and notes the existence of a *white bone*. The next man who passes is a farmer, who sees in it something that constitutes a useful *manure*. The next man is a rag and bone merchant, who, if he had his truck with him,

would carry it away as an *article of trade*. The next is a chemist, and he looks on the bone as a substance consisting principally of *lime*, and capable of being resolved into it. His companion has studied comparative anatomy, pathology, and geology, and seeing something unusual about the bone, he picks it up, and sees that it has been *part of an animal* of a particular species, size, and age, which his mind instinctively pictures to itself. It bears a relationship to an extinct species which is also present in his mind. His attention is next occupied by the ring of extra substance on a particular part of it, showing that it had been broken and had healed; and for the rest of his stroll his mind is engaged on the wonderful nature of the *vis reparatrix naturæ*, and the question why this is so much more limited in some organisms than in others.

Let us here observe, first, that there is the same external object in each case, and the same impression made by it on the senses in the six different instances in which it has been seen. Nor is there any reason to question that the "phantasm" that has been sent up by the senses to the brain is in each case the same. Secondly, that this same sense-impression produced entirely different ideas in the brain of the animal and each of the five men; and that in most of the cases it was impossible that it should excite the same idea in one of them which it did in another. And, thirdly, that the cause of this difference is obviously the notions which were previously in the brain of the dog and the men, so that their views, so to speak, or knowledge of the bone, were the joint result of the sense-impression, *plus* something in their own mind. And so we are led to conclusions, which may be verified by our own observation, that we always see phenomena *in relation to ideas already in the mind*, and cannot see them in the relationship of ideas with which we are not previously so familiar that they are predominant, or at least active in the mind.

Thus in the example; the impression made by the bone on the dog is so much "grub," which is certainly an active idea in his brain. Whether the sense-impression went through his mind and led to a reasoning process, "this is a bone, therefore it may be grub," or flew straight to the appetite for food, and excited it, may be questioned. The labourer gets a step further. He certainly knows that the impression made on his sight is by a bone—a white bone—but here he stops. So Wordsworth exactly describes the boor state of mind:—

A primrose on the river's brim,
A yellow primrose was to him,
And it was nothing more.

The farmer gets further; his mind being occupied with thoughts on the cultivation of land, and how it may be made most productive, no sooner does the phantasm of the white bone strike his mind, than overlooking its shape, size, form and relationship to an organism, he regards it simply as a substance that would contribute to the important purpose of enriching the soil. The rag and bone collector thinks nothing about this, nor does he understand the chemical compounds of which the bone consists; his attention is directed to it as something amidst the cast-out rubbish which may contribute to his scanty subsistence. The thought which the sense-impression awakens in him is not that of a bone, but a little addition towards making up the hundred-weight that will bring in a few pence. The chemist, though perhaps quite incapable of entering into the thoughts and speculations of the geologist and comparative anatomist, rises above the others, inasmuch as he does not regard the object which strikes his eye as something that may serve his own particular purposes, but in relationship to science. It is a bone, yes; but rather one of those substances which, consisting of particular compounds, has certain peculiarities of composition and may be decomposed by such a particular process. While the last man who comes across it, being a man not of any special occupation or study, but one whose mind is enlarged by general learning, is able to regard the bone from many points of view. He can take in all the relationships in which it has been viewed by the others, and several others of which they were quite incapable.

It is, then, evident that knowledge does not consist of bare, naked phenomena but also of that dress with which the mind of each one at once covers and clothes it, often enveloping it so completely that the first impression is hidden and lost sight of in the abundance of the environment. It is also evident that the character of this clothing is dependent on the character of each one's mind, and taken from it. And it appears that not only the character of the clothing, but also the variety of the dresses in which the fact can be arrayed, corresponds to the variety of the knowledge possessed by the particular mind on which the outward impression falls.

But whence, it was asked, does the mind get the ideas with which it clothes each fact? Men could see that knowledge did not consist in the bare cognizance of phenomena; that there was no intellectual knowledge until the mind had done something with the phenomena. They observed that each fact was viewed by the mind in the light of ideas already in the mind, and as they could not see when or how these ideas got into the mind, they invented the theory that they were innate. But there is, as we have

pointed out, nothing to prove that children come into the world possessed of innate ideas, and there is a great deal to prove that they do not. We must needs look elsewhere for an explanation, and we find one at once easier and more probable in the analogy of the action of animal life to that of the mind, acting on the facts that come up to it. These facts, let it be noted, are never simple or abstract ideas, but always complex. Just as the substances with which Nature feeds the body are not elementary substances in an unmixed state, but always compounded of several substances, so the mind never takes in abstract ideas from without, for the reason, as we have seen, that we have no sense-perceptions of abstract qualities. The ideas that are presented to the "*intellectus passivus*" and impressed on it, are of phenomena compounded of several simple ideas contained in it.

What is the action of the intellect on these complex ideas? Let us follow out the similitude which of all seems most analogous to the process of the formation of ideas. The body is sustained by food received into the stomach. The food, however, as we have noted, does not consist of simple substances, but is composed of different substances that are held together by some vital or other force, be it electricity or something else. The stomach which receives these compound substances has the power of dissolving them into their simple elements, and selecting from their components. Some of them it rejects, and others it takes up for its own purposes. It does not make the one or the other, but it can extract those portions which it requires from the compound substances which it receives.

Now this seems to represent very closely the process of the intellect in dealing with ideas—*i.e.*, the phantasms of sense-perceptions. As the stomach, which passively receives the substances put into it, contains juices which at once seize on those substances and dissolve them, in like manner, it would seem, the intellect which passively receives the phantasms, holds in itself forces more or less vigorous, for dissolving the sense-perceptions into some or all of their elements. Thus the mind, like the stomach, is at once a passive recipient and an active agent. "We are compelled to admit," says Dean Mansel, "that the mind, in its contemplation of objects, is not the mere passive recipient of the things presented to it, but has an activity and a law of its own by virtue of which it re-acts on the materials existing without, and moulds them into that form in which consciousness is capable of apprehending them."*

Canon Walker shows that St. Thomas teaches the same thing. He describes the intellect as having not merely the power of re-

* "*Bampton Lectures*," p. 141.

ceiving impressions, but also of acting upon them, and this function of the intellect he calls "intellectus agens":—

The manner in which this active virtue of the soul fulfils its duty may be thus described. It is able to represent "species" to the intellect by abstracting from the report of the senses, or from its phantasms, and placing the species in a simple intelligible form.*

St. Thomas says that the "high and noble agent which Aristotle calls 'intellectus agens,' makes the phantasms received from the senses actually intelligible by means of a certain abstraction," and he says that the soul performs this operation by throwing light on the phantasms.

Elsewhere [continues Canon Walker] he shows the relation of the phantasms to both virtues (or powers) of the intellectual soul. The phantasms are compared to the "intellectus possibilis" as colours to the sight, and to the "intellectus agens" as the colours to the light. This explanation is instructive, for there are no colours visible where there is no light, and it is the light shed on the object which brings out its colours. On the other hand, the object becomes visible to the sight by means of the colours with which it is invested.

Canon Walker brings a happy illustration from Goudin, an exponent of St. Thomas' philosophy:—

There are some animals, like cats, which see in the dark, because from their eyes there escapes a brightness which lights up the objects and renders them visible. In the eyes of these animals there is a double virtue, one by which they can enlighten the objects to make them visible and shed forth visible species; the other which receives the species and through them contemplates the objects.†

While thus the passive intellect receives the compound sense-perceptions brought to it, the active intellect thereupon immediately sets to work upon them, as the gastric juice does on the different foods brought into the stomach, and its first action is to dissolve them. This is described as a process of abstraction, and

* "Origin of Knowledge," p. 15.

† *Ibid.* p. 17. See Mansel's "Letters and Lectures." "That we think by means of simple ideas is true in the same sense in which it is true that we breathe by means of oxygen and azote. The simple ideas, though they are the elements of which thought is composed, are elements elicited only by an artificial analysis of objects which naturally present themselves in a compound state." P. 308. And a little further on, he speaks of Locke overlooking "the fact that the most important of our sensitive perceptions consist of a plurality of ideas given in conjunction, and that the act of the mind is more often an analysis by which simple ideas are elicited from the compound than a synthesis by which complex ideas are formed out of simple ones." *Ibid.* Perhaps, however, Locke did not "overlook" this fact, but was speaking of a later operation of the mind in which, as will be seen, knowledge is attained by synthesis, though the first act is that of analysis.

hence the simple elements which are evolved from any sense-perception are called abstract ideas. They are ideas taken from the different sense-perceptions. Thus a child sees a rose, a soldier, a railway signal, and observes that different as they are in form and general appearance, yet they are all red, and thus the idea of redness is obtained separate from any particular object. Thence, as each new object of a red colour strikes the mind, it classifies it as red in accordance with the abstract idea already possessed. The abstract or general idea once obtained, serves as a cord on which to string each fresh object that has the same quality. Or would it be more correct to say that the idea of redness having once obtained a place in the mind, each new object possessing that quality has a sort of chemical affinity to that idea, and takes its position by the side of it?

From this it appears that though the active intellect can get so far from repeated impressions of complex objects as to dissolve them into the simple ideas of which they are composed, yet it cannot get so far as to classify objects until it is possessed of abstract ideas. And in accordance with this we find that the process of generalization goes on in each one in proportion to the abstract notions he has already got hold of. The reason why the country labourer could see nothing in the primrose but a yellow flower was because his abstract ideas did not reach to botanical knowledge, but simply to the ideas of a flower and colour. As the stomach cannot dissolve some substances, as not being possessed of suitable solvents, so the mind can only analyze the complex ideas brought into it, so far as it is possessed of ideas that have some similarity or affinity to the simple ideas of which the complex object is composed. And it will bring out or take up that particular idea with which it has affinity. This, then, is the first beginning of real *knowledge*, when the object presented to the mind is analyzed by ideas of which it has already possessed itself. It would appear then that the origin of abstract ideas is sufficiently accounted for by repeated sense-perceptions of objects, which, though differing in other respects, agree in some one quality, and thus leave in time an impression on the mind of that quality. But if it be objected that, in order to analyze the *first* sense-perceptions, the mind must have already in it some idea of abstract qualities to act as a solvent of the sense-perceptions of complex objects impressed on it, this, it may be answered, though a point of some obscurity, through the difficulty of tracing the action of the earliest movements of the intellect, is in close analogy to what happens in the bodily process of digestion which presents the same apparent difficulty. For the food is digested by the acids in the stomach; these acids are secreted from previous food. This is ascertained. But how then

was the first food dissolved? It must be supposed that the process which is so ordered as to go on of itself, is, in the first instance, *set going* from without. The process of breathing has in some cases to be begun artificially. The steam-engine, which is so constructed as to admit of itself the steam which keeps it in motion, has in the first instance to be put into action by the engine-driver. And it may be well supposed that the first action of the mind, like the first action of the digestive organs, is derived from the mother, who, as she supplies the first nutriment and means of digesting it from her own body, so likewise imparts her own ideas of things to the dawning intellect of the child, leading it to view its first sense-perceptions in the light of her own mind.

The first act of the active intellect is, then, to dissolve the phantasms of complex objects in the passive intellect, and to obtain from them abstract or simple ideas. The next is to use these abstract ideas in combination with fresh phenomena, and thus obtain new ideas. It is this product of phenomena, acted on by ideas already in the mind, that properly constitutes knowledge. As the chyle, and from it the blood, are formed by the action of the stomach on the food brought into it, which it first dissolves and then recombines into the new substance that it requires, so does the mind in the formation of knowledge. Each new sense-perception is fertilized, so to say, by its combination with ideas already in the mind, and forms a new intellectual substance. Bare, naked facts have no significance until viewed in the light of some idea already active in the mind. They are barren until brought into relation with some active principle, some ruling idea, energizing in the mind. But then they come forth into light with a new force and fresh character after being subjected to the vivifying influence of the "*intellectus agens*."

And here we may call attention to the great dictum of St. Thomas that all knowledge is obtained in the first instance from the senses: "*Nihil in intellectu quod non prius fuit in sensu.*" Knowledge of phenomena is admittedly obtained from the impressions made by external objects on the senses. These, subtilized into phantasms, are received into the "*intellectus passivus*," when dissolved by the "*intellectus agens*" into the simple and abstract ideas of which they are made up. Still the mind has put nothing of her own into them; and when the "*intellectus agens*" goes on to construct fresh ideas out of them, by pouring into them ideas of which it is possessed, yet even these last have, themselves, as we have seen, been obtained out of previous sense-impressions by the power of abstraction. The "*intellectus agens*" does not then impart ideas to them out of its own substance, but, like the stomach, makes use of those of which she has

previously become possessed, to fertilize and reconstruct the new impressions that are from time to time conveyed to her. If this is so it shows what a delusion it is to suppose that we can draw truth out of our own mind in the sense of constructing new ideas from it. For the mind has no power of this sort. We can get nothing out of it, except what we first consciously or unconsciously put into it. It has no materials of its own. It can, therefore, only *re-construct*, making new forms and ideas out of the combinations of the ideas drawn from sense-perceptions. When Descartes built his philosophy on the reality of his own thought—"Cogito, ergo sum"—his mind was not in the first instance the agent but the recipient. The mind has ideas thrown into it, and transforms them through the ministry of other ideas, making the least or the most out of them according to its activity. We speak of some truths being self-evident, as if the mind got them from her own consciousness, but this very consciousness is made up of the ideas she got from without. When we say that it is self-evident, that the whole is greater than a part, what does it come to but this: that the mind was instructed in the first instance in the meaning of "whole," and only could get hold of the idea by the explanation that it meant more than a part? It is self-evident, inasmuch as we have set out with an agreement that "whole" shall mean more than part. Withdraw this agreement, and it will at once cease to be evident.

It is, of course, no new theory that our view of facts is modified by the ideas already in the mind. St. Thomas, as we have seen, describes this as looking at an object in the light of an idea in the mind. Locke explains it as association of ideas. But while no claim is made to a discovery, yet it does not seem to be commonly nor adequately understood that all knowledge is really the result of a combination of ideas—of one idea acting on another, and that this process is ordinarily an unconscious and involuntary one. What is intended to be here maintained is not that a fact *may* be looked at in the light of another fact or idea, but that it *must* be, in so far as there is true knowledge or "science"; that knowledge in short consists in this. And further that it is not in our power, in the first instance, or by any direct process, to determine in what direction the fact that comes before us shall be modified or reconstructed by other ideas. For this depends on what ideas we have already existing and predominant, or at least prominent, in our minds. And it depends further on a sort of affinity of ideas which leads some readily to combine with others, and others not to do so. Not any two ideas will combine, but two ideas that have an affinity to each other. And yet not the same ideas, for these may be strung together in the memory, but they will not unite. Ideas that unite are ideas that, with some points of

similarity, possess also some points of difference, and through the union or conjunction of the two knowledge is produced. In like manner, we have power to determine what food the stomach shall receive, but when once it is received we have no direct power how it shall be digested or assimilated. This depends a good deal upon what the stomach has been fed with before, and what character, therefore, of gastric juice it contains suited for the reconstruction of particular compounds. That which is predominant must needs prevail, so long as it is predominant. And that must needs predominate which is characteristic to each species. We see that plants of different species grow in the same soil and are nourished by the same air; yet each variety possesses a power of taking up particular elements out of earth and air which will form its characteristic structure and qualities, and it must do this because it begins by possessing those chemical or vital forces which are able to combine with these elements, and these alone. Give the same food to birds and to fish, yet each draws from the same materials that which maintains its own peculiar structure, the food being acted on by different internal powers and brought into combination with different internal secretions. Thus each animal and plant is nourished and built up by laying hold of that element that is most congenial to itself, and turns it into sustaining matter for its existing system. To make it absorb other elements you must first change or modify its constitution. So with the mind; it inevitably, and for the most part unconsciously, sees each fact in relation to the ideas that it has in its mind. "The eye," says Carlyle, "sees what it brings the power to see." Until the matter is brought to its notice—*i.e.*, until it has gained some new idea wherewith to influence the objects presented to it, it is not aware that there is any way of looking at them other than that which it is exercising. It cannot see them in another light, until it is possessed of that light. A man may indeed be able to view things in many lights, under many relationships; but he can only do this so far as he is possessed of these different lights. And these are not obtained without a certain amount of thought and study. What we mean by a large-minded man is one who is already possessed by many ideas, so that when any subject is presented to him, he can view it in many lights and in its relationship to many different ideas. But he cannot fertilize the new idea without an idea pre-existing in the mind bearing some relationship or affinity to it.

Some very important results of a practical kind follow from its being fully understood how knowledge is formed and what are its constituents. First, in enabling us to get at truth more unerringly. We depend for our knowledge of things on the

statements, the evidence, the arguments of our fellow-men. Yet what they say depends not merely on what they know and have seen, but on the light in which they have seen their facts, on the ideas with which they are in combination in their minds. Unless we can learn in our voyage through life to make due allowance for this variation of the compass, we must often needs be landed on very faulty conclusions. In his "Grammar of Assent," Cardinal Newman gives a striking example of historical writers of distinction coming to contradictory conclusions from a view of the same facts of ancient history.

The conclusions [he says] vary with the particular writer, for each writes from his own point of view and with his own principles, and these admit of no common measure.

And he quotes Mr. Grote, who, speaking of the Homeric poems, says:—

Our means of knowledge are so limited, that no one can produce arguments sufficiently cogent to contend against opposing pre-conceptions, and it creates a painful sensation of diffidence when we read the expressions of exact and absolute persuasion with which the opposite conclusions have both been advanced.

"Exactly so," says Newman, "every one has his own 'critical feeling,' his 'antecedent reasonings,' and in consequence his own 'absolute persuasion;' and who, whether stranger or friend, is to reach and affect what is so intimately bound up with the mental constitution of each?"*

In another place, speaking of proof from argument, he says:—

It would be something to arrive at length at premises which are undeniable, however long we might be in arriving at them; but in this case, the long retrospection lodges us at length in what are called first principles, the recondite sources of all knowledge, as to which logic provides us no common measure of minds—which are accepted by some, rejected by others—in which, and not in the syllogistic exhibitions, lies the whole problem of attaining the truth, and which are called self-evident by their respective advocates, because they are evident in no other way.†

"We are liable," says Dr. Carpenter, "to be affected by our prepossessions at every stage of our mental activity, from our primary reception of impressions from without to the highest exercise of our reasoning powers."‡ Here we see it recognized by great authorities that, even with those of enlarged and cultivated minds, the first principles and preconceptions in the intellect are such important factors in knowledge as to lead

* Pp. 361-2.

† P. 262.

‡ See article in *Contemporary Review*, Jan. 1876.

them to different and even opposite views of the same phenomena. But if it is so even with them, how much more allowance must be made in the case of narrow-minded men. For, by narrowness of mind, we understand a man being possessed exclusively, or at least predominantly, by one notion or idea, so that he cannot view the different objects or events that he encounters except in their relation to that one idea. Whatever new ideas enter his mind, they are all united indissolubly with the reigning idea. However different may be the type of the father, yet the offspring invariably retains a family likeness to the mother. Knowledge is the product of two ideas, and, if one of these is ever the same, the offspring cannot but partake of its character. While this necessity has a beneficial tendency in creating new varieties of ideas, yet the effect on the minds of men who are engrossed by one only idea is strange and grotesque.

"The mathematician," says Lecky, "ridiculed by Berkeley, who maintained that the soul must be extension, and the fiddler who was convinced that it must be harmony, are scarcely exaggerated representations of the tendency manifested by almost every one who is addicted to a single study to explain by it all the phenomena of existence.* What then? Are we to give up the search for truth as having such difficulties about it as to render its attainment hopeless? Because men can only see things by the light that is in them, and it is difficult to trace the origin and determine the character of the ideas that predominate in their mind, shall we resign the attempt? This is not the way in which the victories of Science have been achieved. The wonderful discoveries and great practical results arrived at in physiology, chemistry, electricity, pathology, and other sciences, have only been attained by an enormous amount of patient and laborious study. Is not the investigation of the mind in its normal and its diseased state a subject which would repay the labour bestowed on it? Not merely as an interesting or curious study, but for the sake of its great practical value in daily life, there cannot be any more important science than one which would help to measure, to analyze, and to test men's statements and arguments, to diagnose their mental condition, and thus to discriminate between that which they have really seen and heard and that which is the illegitimate offspring of their own imagination. And thus a clear understanding of the process of the formation of knowledge would be no small help towards accuracy and certainty in the attainment of truth.

Then, secondly, a constant recognition of the way in which knowledge exists in the mind would surely be of great value

* "History of Rationalism," p. 321.

socially, in the assistance it would give towards estimating character. We have all of us to deal with others in the several relations of ordinary life, as superiors, equals, or inferiors, in the intercourse of society as well as in matters of business; and the principal difficulty that lies in the way of these relationships being carried on successfully and pleasantly, is the inability of most men to enter into the feelings, and estimate the mental attitude, of those they are dealing with. They seldom really see that these are very different from their own, or they would try to make allowance for the fact. Men are continually at cross purposes with each other, talking and treating about a subject which they designate by the same word and suppose to possess the same qualities, whereas the idea of that subject is not uncommonly very different in the mind of one from what it is in that of the other. The one makes, as he thinks, an obvious statement or a reasonable demand, and the other, as he says, "cannot see it." It is just that. The idea, the fact in question, is a totally different thing in his mind. Nor can he help this. In one, and that a real sense, it is true that men are not masters of their *φαντασία*.^{*} It is the result of their previous ideas and past habits—reprehensibly so, it may be—still here and now, as they stand before you, they cannot help it. They cannot impregnate the facts under consideration with ideas that have no place in their mind. So long, therefore, as they are *de facto* in this state, if we would act considerately, or even reasonably towards them, we must take their state of mind into account. Until we can instil into their minds the ideas that are predominant in our own, we must appeal to the notions that are predominant in theirs. If we have not the skill or opportunity for this, yet at least we must not treat them as impracticable or unreasonable, when it is, in fact, just as true that *we* "cannot see it," as that they cannot. They are able to see facts as well as we are, but the idea of that fact in the mind is in combination with one association in one case, and with a different one in another, and the compound makes a new idea which is widely diverse in each. Men continually call on others to act up to high principles and ideals which do not exist in the minds of those they address. Virtue and goodness may be beautiful in their minds as in yours, but they do not understand by virtue and goodness what you do. The street Arab's ideal of what is noble and admirable is not unselfishness or devotion to duty. To him, and many others too, in higher walks of life, the world is one great struggle amongst men who are all striving to bring advantage to themselves, and their highest ideal is of him who

* Aristotle, "Ethics," iii. 5. τῆς δὲ φαντασίας ὁν κύριον

is the craftiest fox in dodging the hounds or securing prey for himself. Are we to treat these as guilty criminals for not acting on ideas of justice which they have never practically realized? And what is true about the criminal and abandoned classes is true in its measure about most men in their several failings and shortcomings. They must, therefore, be judged by what they have and not that which they have not. The man who is criminal or vicious or selfish, and, knowing that these are wrong, acts against his own conviction of what is right, is fairly estimated as a bad man, in a very different sense from him who acts in accordance with the ideas of which alone he is possessed. To form, then, a true estimate of the characters and intentions of the men we have to do with in life, it is essential to be acquainted with the different ideas they are possessed of. Nor have we to make allowance for the views and ideas of others only, but of ourselves also. And those are the most successful in dealing with and leading other men, who, like a skilful physician, can look at each one and see what manner of man he is, and then appeal to the views and ideas that are predominant in him.

But the question will be asked, whether it is not possible, in place of accommodating ourselves to the faults and weaknesses of others, to correct and reform them? Men are often impatient at the wrong-headed, crooked notions of those they have to deal with, and desire to override these rather than take them into account and make allowance for them. Yet when character is once formed, they must be taken into account; and being impatient with vicious and wrong-headed people, and saying we will not put up with them, has no tendency to correct their errors. We cannot stamp out their ideas by being overbearing. And to attempt this would only result in a dislike of *our* ideas and notions, which lead us to treat others so hardly. We can indeed sometimes bar outward acts, making them so painful or difficult as to deter from their repetition. But this is not to change the character, which will only develop itself in some other direction.

And, again, how can we root out men's wrong-headed notions? What means have we for destroying ideas that were laid down in early youth? They do not rest on a foundation of reason so much as on first impressions, and they are cemented by many subsequent associations. No arguments, however clear and forcible, are ordinarily of any avail, for they are not so clear and forcible as the convictions which are already in possession.

Nor is the prospect better if, in place of striving to eradicate men's faulty notions, we endeavour to implant our own in their stead. The ground is already occupied. It is in vain that we appeal to better feelings and higher motives. The result is ordinarily that sort of assent which comes from unwillingness to

offend,—the best, because the only one that can be given, where an appeal is made to ideas that have no place in the mind. The great difficulty is to get men to be willing to turn their mind in a direction that is contrary to their own prepossessions. They do not see it ; but what is more, they do not want to see it. “He that’s convinced against his will”—and the rest. Nor is this mere perversity, as we might think. They *believe* their own view of things. They are strong in their own sense, as we ourselves are in ours ; and they are not so very clear about the benevolent intentions or superior judgment of those who would reform them. Their mind is often possessed with the idea that each man is striving to gain his own end. It is not then very easy to lead them to fix their attention with a will on the considerations we may set before them. We may bring any amount of historical or present facts before the mind of the wayward and vicious, yet how are we to prevent these facts from being viewed in the colour of their present ideas ? And thus it is not an easy thing, nor one of common occurrence, to reform a character. Those whose habits are formed on ideas that have long held place in their minds, may be restrained for a time, but real conversion of mind is rightly viewed as a supernatural rather than a natural process.

This consideration of the extreme difficulty of changing the ideas which have once taken possession of men’s minds leads to the conclusion of the supreme importance of laying down right ideas in the first instance. If character once formed cannot ordinarily be altered, and if it is what it is through first ideas and impressions, the one great thing is to look to these. By beginning at the foundation, we have it a good deal in our own power to determine the particular kind of ideas and tastes we desire should predominate, and the lines, as it were, on which life shall run.

Quo semel est imbuta recens servabit odorem
Testa diu.

Whatever is afterwards put into the cask is flavoured by the spirit which first impregnated it. “All life,” says Lecky, “is coloured by our first impressions.” “Our knowledge,” says Locke, “depends on our character,” and this not only because each fresh impression made on the senses is coloured by the tone of our character, but also because our character leads us to turn our mind, as we do our eyes, in the direction of the impressions we are most inclined to receive.* These favoured impressions have a sort of privilege of *entrée* not accorded to others. We choose

* Hence this attention given to some impressions before others is termed by Aristotle *πρῶταισιν*.

them before others, and they enjoy frequent and prolonged audiences. Now that which regulates these predilections are our first impressions, and to secure that these are of the right sort is the work of education. Education does not consist in giving a knowledge of facts; but, above all, in giving a direction to the mind, and taking advantage of its being tender and impressionable, to secure the first impressions being good ones. Till the child has ideas of its own, it must needs take them from those with whom it lives. Their views, habits and tastes will be imbibed and imitated. What we have, therefore, to see to is that the examples and ideas set first before him are of what is good and great, meritorious and noble.

Daily life affords innumerable examples of the marvellous way our conduct is directed according to the ideas we have taken up and the tastes we have formed in early life. We Englishmen have imbibed, as we say, a taste for manly sports and exercises, and go through a great amount of hard work, fatigue, exertion, and deprivation in efforts to distinguish ourselves in them. And we do it with a sense of interest, relish, and pleasure derived from our first impressions and associations. Frenchmen, who have not often been brought up to mountain climbing, will shrug their shoulders at the singular folly which leads members of the Alpine Club to face cold and danger in exploring mountain heights, when they might remain safely and comfortably below.

Not is it only in matters of taste and recreation, but still more as regards the serious occupations of life, that we take in childhood a line on which we continue to run to the end. We read the lives of great men, who have done noble, heroic actions from a love of glory, a sense of duty, or from loyalty to a chief or to a cause. These sentiments have been their support and stay under dangers and sufferings that would scare or crush ordinary men. Again, in common life, men pass through occupations of danger and scenes of vice and misery unhurt and even unmoved, because they look upon these things in altogether another light from the common one. These are connected in their minds with elevated ideas of scientific research or Christian charity, or public spirit, or the "luxury of benevolence," and they see nothing else in them, and thus, according to the different ideas which the child has imbibed, he will be inclined, as he grows up, to encounter danger and difficulty or to fly from it, to bow before the opinion of others, or pride himself in being independent of it; he will find his satisfaction in indulging self or in giving gratification to others.

Education then—especially early education—is the one great means in our power for forming character. Nothing will take its place if neglected, and the farther the moral edifice is advanced the more intricate and laborious it becomes to convert the existing

works to a structure of a different kind. But the question still recurs, is it *never* possible to reform character? Very seldom; but we cannot say it is impossible. Where it does happen, it is generally under the influence of something violent and unusual—a catastrophe, an entire change of outward circumstances, a long illness, a near view of death. Such things sometimes give a shock to the mind which tends to upset the ideas that have hitherto been predominant, and prepares the way for a change in them. The emotions of fear and desire have great power in drawing the mind to particular subjects, and leading us to dwell on them. But that which is, above all, most effective in facilitating a change in men's character is the personal influence of any whom they love, whose kindness has been uniform, of whose gentleness and generosity they have had such constant experience that they have full confidence in them as their friends. In constant intercourse with such persons, they may sometimes be got at through the affections, and induced to look steadily at the new considerations put before them, and thus begin to view things in the light of other minds besides their own.

Nor must we omit, as a powerful means of assisting to a reform, the society of those whose character it is desired they should imitate. If only it can be managed that they should enjoy a constant intercourse with such persons (especially if they be persons of strong character), they may in time catch something of their ideas, and having facts repeatedly and perseveringly brought before them under a new aspect or colour, they may at length learn to see things, *and, above all, themselves*, as others see them.

But those who in this way would influence others for good, must ever bear in mind the way in which new ideas are obtained, and in which knowledge, and so character, is formed. If they who have to deal with those who are still children, must needs come down to their ideas and show sympathy with their thoughts in order to instil new ideas, still more must he who would educate afresh those whose character is now fully formed, make a study of the ideas of which that character consists. He must search for topics of common interest and sympathy. He must enter into their views of things till he discovers something in their present philosophy which will give a power to the new ideas he would implant within their breasts. He can only hope for success by working in conformity with the laws which He who created knowledge has laid down for its formation.

JOHN G. WENHAM.

Science Notices.

The "Challenger" Expedition.—The Government has published the results of the cruise of the *Challenger*, but the volumes are so high-priced as to be practically inaccessible to the nation at large. We have, therefore, to depend largely upon the information of those who are exceptionally favoured by fortune for the results of this famous expedition. Deep sea dredging is a branch of quite recent investigation; until lately we hardly suspected what strange stories and secrets the deep sea had to tell us. The starry depths have for ages attracted the attention of the wise men of all generations, but the "mighty monster, the ocean," was perhaps too forbidding, too awe-inspiring to approach. But we have now changed all this, and science has now new and almost boundless realms to conquer. One result of the expedition is of such importance, that even if nothing else had been discovered, this fact alone would have been quite worth the heavy expenditure entailed by the cruise. Up to quite a recent date, the school of Sir C. Lyell, to which most of the English geologists belonged, believed that there has been a constant see-saw between sea and land. The land and rocks upon which we stand, they held, had once been deep sea, and that in time to come the Atlantic would probably fill up and become the home of future men and nations. Among the very first results of the *Challenger* researches, was the discovery of enormous beds of globigerina ooze upon the Atlantic floor. This, upon examination, proved to be identical in substance with the material of which our great chalk cliffs are built up. The conclusion was at once jumped at that the Atlantic was slowly filling up, and laying the foundations of a chalk range that would, in distant ages, be the continuation of that great chain of rocks that stretches from Egypt to Great Britain. This brilliant hypothesis has now been shattered. If there is one thing upon which Sir C. Wyville Thomson and his colleagues are agreed, it is this: that there is such a fixed character about the great ocean basins as to preclude altogether the idea that they were at any time dry land, or that they are ever likely to become dry land. The great abysses are all fringed with a shallow ledge of land, never more than a hundred miles broad. And beyond these we descend at once, by almost perpendicular descent, into the great abysmal depths of from one to two thousand fathoms. Our rocks show nothing like the red clay and deposits that now strew the great ocean floors. If there has been any change of land and sea, these movements have been entirely confined to the shallow seas, or the narrow shallow borders that fringe the ocean depths. This fact is of passing importance to geology. It renders the mode of formation of this globe of ours more mysterious than ever. It

was so simple and easy to understand how in the dim past the fiery globe that was hurled from the sun gradually cooled down in its mad course through the cold regions of space; how the cracks and fissures resulting from this cooling formed themselves into hollows; how the heavy vapours and steam were condensed and filled up these wrinkles. And all these pretty theories must be modified. The advocates of special creation have now quite the best of the argument, and the evidence, whatever there is, goes in their favour.

Our Coal Supply.—The commercial superiority of English manufactures has been achieved almost entirely by the large and accessible coal supplies in our island. It is not surprising, then, that anxious thoughts are often turned to the question of the duration of our coal supply. When our coal fails, England's wealth will fail too, and it is not a cheering fact to consider that we are within measurable distance of the date at which our coal fields will be exhausted. In 1866, this question was to the fore, and a Royal Commission, of which the Duke of Argyll was chairman, was appointed to investigate the probable quantity of coal contained in Great Britain. In 1871, the Commission reported that the coal fields already in use contained 90,000 million tons of coal, and that unopened fields near Doncaster, Birmingham, and other places, probably contained 56,000 million tons more. So that in all there were available about 150,000 million tons of coal. It was calculated, then, that if the output of coal continues to increase at the rate of three millions annually, our supply will last for 261 years, or will be exhausted about A.D. 2145.

These calculations have lately been reviewed by Mr. S. Lupton, and he points out several objections to these numbers, and shows that the question of the supply is much more serious than the Commission considered it.

In 1866, no account was taken of the depth to which the coal extended. It is well-known, however, that the cost of mining increased so rapidly with increased depth, that the price of coal must rise to such a figure as to render it unprofitable to work.

Again, the increase of our output at the constant rate of three millions per annum is open to serious objection. As a matter of fact the increase advances in a progressive ratio. If we take the returns for the last thirty years, we shall find an increase upon the previous years' supply at about the rate of three per cent. per annum. Making the calculation we shall find at this rate our total supply will be exhausted in another 100 years, or about A.D. 1990.

Long before this date, however, we may expect the output to gradually diminish, until coal becomes more and more scarce and expensive. Is it impossible that the England of the next century will be compelled to descend from its proud position and look back to her wealth of the nineteenth century, as Spain now looks back to the Empire of Philip II.? The outlook is sufficiently overcast. Unless science can find some new form of energy to take the place

of coal, or utilize more economically our existing stores, there can be no doubt that the days of England's greatness are numbered.

However, all have not despaired. Mr. Fletcher, of Warrington, so well-known for his inventions in the economy of fuel, is reported to have used these words at the Parkes Museum, on March 26 ult. :—"Some people are afraid that when after a short time the coal supply of England is exhausted, the predicted New Zealander, as he sits among the ruins of St. Paul's, will be able to live on the rabbits caught among the ruins. But if gaseous fuel and flameless regenerative furnaces are used in our manufactories, it is probable that the coming New Zealander will have to defer his visit for a length of time which the present generation need not consider; in fact, we shall be able to import our fuel from unexhausted countries, and hold our own against them after our coal is gone."

Lightning Conductors.—We are in constant difficulties with our lightning conductors; accidents with them are of such frequent occurrence as to attract the notice of the Government. These failures are usually ascribed to the typical British workman, flaws in the metal, imperfect insulation and the rest. But of late there have come forward those who do not fear to condemn the conductors altogether as not only useless but a source of danger. It is contended that the conductor attracts the lightning stroke to a building which otherwise might have escaped untouched. "Conductors," therefore, is a misnomer, "attractors" would be a more correct term. Colonel Parnell has collected full details of 320 well authenticated cases of the failures of lightning conductors. Of these, 64 per cent. resulted in injuries to rods or persons, and 47 per cent., or in 151 cases, there were injuries to buildings or persons. The imperfection of the rods can hardly be held responsible for these casualties, for it would appear as if failures and accidents more frequently happen with rods deemed in good order than with those considered after the event in bad order. It is a very significant fact that, according to Sir W. Thomson, the Glasgow manufacturers think it cheaper to insure their factories than to employ lightning rods.

In fact, the advocates of conductors are demanding so much to insure the perfection of their rods that it will soon be quite impossible, except to the very wealthy, to employ them at all. According to one authority, householders are advised to cover their roofs "with a broadly cast net of metallic meshes and lines." The frequent use of the galvanometer is also insisted upon as a measure needed to ascertain the conductivity of the metal and the earth. But what patient paterfamilias would undertake to cover his house with nets of copper wire? and even should his galvanometer indicate an imperfect rod, or too dry a soil, what must he do? The simplest solution of the difficulty would be to discard such troublesome, unreliable things, and take one's risk of the storms and tempests of heaven.

Meteorology.—It is now no longer a matter of doubt where the storms come from that strike our coasts. All modern investigation

shows that the general direction of storms is from some point between west and south-west towards east and north-east. The British Islands, therefore, lie in the direct pathway of these airy vortices, and are more unfavourably situated than any other country in respect of storm warnings, as there is no coast or no position to the westward on which we could establish a station. An attempt was made a few years ago to moor a vessel at the entrance of the English Channel, and connect it by cable with our coast, but it proved a failure and had to be abandoned. The study of storms has been most successfully prosecuted in America, where exceptional opportunities for such research exist. Professor Loomis, who has devoted much time to the investigation of Atlantic storms, has calculated that they move at an average rate of fourteen miles an hour. Other authorities give a much higher speed than this, and we may fairly take the velocity as something nearer twenty miles an hour. It has been suggested that the merchant captains might be of much assistance in sending to this country warning of the storms that are crossing the Atlantic. Let us suppose that some of our great liners encounter a storm some 500 miles from the American coast. They would reach America and be in time to send to this country telegraphic warning of the approach of this gale long before it could reach our coast. For it would take a storm between four or five days to make the passage of the Atlantic. A very useful office, then, might be undertaken by our merchant navy in the matter of storm warnings, were it not for other considerations. It has yet to be proved that the majority of our storms are bred on the American Continent and traverse the Atlantic to us. The *New York Herald* warnings are well known, and have received much attention and trust. The information that the enterprising proprietor cables to England has been gained no doubt from the captains. But it is very doubtful indeed whether any value can be attached to the *New York Herald* cablegrams. The Signal Office of the United States, which, by its enterprise and scientific initiative puts the old countries to the blush, has collected the details of the history of American storms—2,730 in all—for the last twenty years. Now we have in these summaries a ready means of testing the value of the storm warnings from America. We may dismiss the 413 storms that began in America and ended there. We may ask how many began in America and crossed the Atlantic during the last twenty years? Only 190. Whereas nearly 600 began in America and died out in the Atlantic. Barely a third of the American storms ever reach our coasts. Where, then, do the storms come from? Six hundred and fifty-five began in the Atlantic and crossed into Europe. Roughly speaking, we may conclude that one-third of the westerly gales come to us from America; but the great breeding ground of our storms is the Atlantic, which furnishes no less than two-thirds.

A new Armour for Ships.—In one of the stalls of the Inventions Exhibition may be seen specimens of coir—the ligneous fibrous matter which forms the husk of the cocoanut, in various stages of

manufacture. This remarkable material is manufactured into mats and ropes, for which the greatest durability and a high degree of resistance to the action of water is claimed. But a new and very important use seems to be in store for this coir, or copra, as it is also called in commerce, judging from some experiments which have been recently carried out at Toulon, and which have, at the present juncture, a very special interest. The ligneous envelope of the cocconut is reduced to a coarse powder by means of various mechanical disintegrating and comminuting processes. To fourteen parts of this is added one part of the coir, not pulverized, but shreds reduced by combing into a loose fibrous mass, which serves as a sort of *binder*, like hair in mortar. This mixture, known as *cofferdam*, is about five times as light as cork. It is compressed by hydraulic pressure to the density of 120 kilogrammes to the cubic metre. This cofferdam was placed in a wooden compartment and covered with boarding of twelve centimetres in thickness. The depth of the cofferdam was sixty centimetres. The thickness both of the boarding and of the cofferdam were chosen with a view to what might be practicable for protecting vessels, did the result of the experiments warrant such application of the material. At first the resisting power of this material to ordinary projectiles was essayed. A shot was fired from a gun of nineteen centimetres calibre into the case above described from the distance of only fifty metres. Upon examination it was found that the projectile had perforated the case, and had carried away about five litres of the cofferdam—a very small amount under the actual conditions. What, however, is of still greater importance, is the fact that the cofferdam swelled up so as to stop the shot-hole, and consequently any leakage which might thereby be occasioned. It was even found difficult to force water through the portion where the shot had passed. When once in contact with water the fibre rapidly absorbs it and increases in bulk, so as automatically to fill up any perforation made through it.

To test its efficacy as a defence against torpedoes, the cofferdam was enclosed in a box of sheet iron, to the underside of which a torpedo was attached. The explosion of the torpedo blew one of the sides off the case, the contents of which were pierced through and through with a longitudinal perforation. The result was far more violent than with the projectile, still it is considered that the force of the shock was in all probability much weakened.

The cofferdam, has, moreover, the advantage of being very incombustible, which, in the case of explosive projectiles or shells, might prove of the highest value. Live embers buried in the cofferdam to the extent of nearly four inches, instead of igniting the ligneous substance, were speedily extinguished. Explosive shells were also fired from a distance of fifty yards into the cofferdam and burst in it. Many of the splinters were arrested inside the case, and those that passed beyond probably had their celerity so reduced as to be practically harmless.

The French Ministry of Marine has meantime ordered further

experiments, and is seriously considering whether it would not be advisable to give war vessels an envelope of this substance, which seems to promise such a good defence.

Notes of Travel and Exploration.

Russian Central Asia.—Mr. Lansdell's* two bulky volumes are rather an exhaustive and circumstantial description of the Russian territories in Central Asia, than a record of personal experiences of travel. The object of his journey, like that previously undertaken by him across Siberia, was the distribution of copies of the Scripture, as the agent of the London Bible Society, among the various populations through whom he passed. A singular fact recorded by him was the eagerness with which copies of the New Testament in their own language were bought up by the Mussulman Kirghiz, although he had been warned by the Russian authorities that the fanaticism of this people would make it dangerous to attempt the diffusion of any Christian literature amongst them.

Provided with official introductions and passes, and received everywhere with courtesy and consideration, his view of political and social matters must naturally have been somewhat coloured by the channels through which he derived his information. Except in the matter of prison discipline, however, he does not enter much into controverted subjects, contenting himself with a statistical abstract of the condition of each province, compiled from other authorities; and it is as a compendium of information of this kind that his book is chiefly valuable. His account of the Russian system of military colonization is interesting, and recalls the similar measures adopted under the Roman Empire along its borders, as well as by other States in contact with unsettled populations.

Cossack Colonies.—The Cossack population [he tells us] of Akmo-linsk and Semipolatinsk in 1879 was located in 149 settlements, and made up of 87,723 combatants and 99,139 other persons. About 25,000 combatants, and a further population of 28,000, were living in 54 settlements, called the "Irish line." They were originally settled along the river, to serve as a protection against the inroads of the Kirghiz, a plan similar to one I saw in 1879 along the right bank of the Ussuri. The approaches of the Kirghiz are now no longer to be feared, so that these Cossacks have practically lost their local *raison d'être*, but Russia has by their means colonized a fruitful terrain and planted a succession of villages, many of which have over 400 inhabitants, some of them even possessing churches. The male inhabitants of these Cossack villages are bound to

* "Russian Central Asia." By Henry Lansdell, D.D. London: Messrs. Sampson Low & Co. 1885.

serve in war, and are instructed in the handling of arms by *Atamans*, who are drilled for the most part at Omsk, and who sometimes preside over the Cossack communities. The Cossacks have themselves to provide for the erection of their houses, their uniform and horses, receiving from the Government only weapons and munitions, and a pay so small that for a captain it amounts to only 28s. a year. On the other hand, all Cossacks are exempt from taxation, and every head of a family has a grant of about 100 acres of land for cultivation. Should more be required, a small rent is charged, which doubtless is more than recouped by the sums for pasturage paid by the Kirghiz to the Cossacks, to whom the land for about twenty miles on either side of the line belongs. These warrior-farmers cultivate in the fields rye, wheat, oats, barley, and millet, and in the gardens tobacco, potatoes, and water-melons. They make also a quantity of hay, that in these regions must be cheap, for the director of the telegraph station at Omsk told me that most of his clerks had horses, one of which could be kept for from 8s. to 10s. a month.

Lake Issik-Kul.—A curious account is given of Lake Issik-Kul, "the warm lake," contained in a hollow of the great Thian Shan range, and covering, at a height of 5,300 feet above the sea, 3,104 square miles, or ten times the surface of the Lake of Geneva. Fed by sixteen streams from the south and thirteen from the north, it has no visible outlet, while submerged buildings and habitations at its bottom show that it did not always occupy its present position. A local tradition, similar to the one accounting for the origin of Lake Tanganika, says that a well in the doomed city suddenly spouted forth such a quantity of water as to submerge it. Black ore containing iron in such quantity that knives can be made from it, covers the bottom and strews the shore in the shape of sand. Only four kinds of fish, carp, usman, marnik and bream, are found in the lake, but though they are abundant, neither Russians nor Kirghiz catch them. This fact, pointing to some superstition connected with them, the number of their species limited to four, the drowned city and the black ore of the lake, suggest the idea that some legend of its existence may have suggested the story in the "Arabian Nights" of the "Prince of the Black Isles," and the four kinds of fish into which his subjects were transformed.

Mr. Stanley on the Congo.—The publication of Mr. Stanley's new work on the Congo* has been eagerly looked for, not only in England, but throughout the Continent, where it is to appear immediately in eight different languages. The public, which has followed with such interest the history of the explorer's recent work in scattered and imperfect reports from other sources, is glad to have an authoritative and consecutive narrative of it in his own words. The most interesting chapters are those which describe his voyage of exploration up the Congo, from Stanley Pool, with a little flotilla consisting of two steamers, the *Royal* and *En Avant*, and the A1 steam launch towing a canoe and a whaleboat. He thus travelled in the reverse direction over the same reach of the river, down which, in

* "The Congo and the Founding of its Free State." By H. M. Stanley. London: Messrs Sampson Low & Co. 1885.

1877, he had to fight his way through a hostile population, whose war-horns and drums resounded from the banks at each successive dawn, bidding him prepare for a day of battle. On his second voyage he entered into the most amicable relations with these very people, and made blood-brotherhood with their chiefs.

The density of population along some parts of the banks is very great, and it took the flotilla seven hours to steam past the crowded settlement of the Bangala, consisting of a series of large villages massed together and inhabited by people of the same tribe. There was a moment of suspense when Mata Bwyki ("Lord of many Guns"), the grey-haired chief of this district, found that the white man, now landed on his shore, was the same with whom he had fought a terrible battle six years before. The eloquence of Stanley's native interpreter, however, prevailed, and the "Lord of many Guns" consented to become a blood-brother of the "Breaker of the Rocks," as the aborigines have designated the explorer from his road-making feats.

Commercial Products.—The natural riches of the country are so great that Stanley estimates ivory as only fifth in value among its products, palm-oil ranking first, india-rubber second, and gum-copal and orchilla coming next in order. Near the equator the flotilla steamed for several days through a continuous forest of gum-copal trees, all draped over with the orchilla weed, a pale green moss like a floating veil. Even the Zanzibaris could not help exclaiming in admiration, "Ah, friends, this is a rich country! Copal below, and orchilla enough to make many fortunes on the top. There is nothing like this in our country. And just look at the rubber bush!"

The Slave Dealers' Track.—The rude abundance and prosperity of the Congo basin was exchanged for scenes of wide-spread devastation when, at some 900 miles above Stanley Pool, the exploring party came on the track of a terrible Arab slave-raid down the river, which had left its traces in the charred ruins of depopulated villages. The steamers came abreast of the camp of the miscreants a little higher up, and found that they consisted of a confederacy of chiefs who had been raiding for eleven months over a district of 34,570 square miles, larger, that is, than Ireland, and containing about a million of inhabitants. The booty obtained, in the shape of miserable captives, was trifling compared to the vast misery caused through such a wide area.

The Maritime Alps.—A charming volume by the author of "Vera,"* shows how much there is still left to tell even about places so familiar as the Riviera of Genoa and Southern Provence. The romance of early Christianity is interwoven here with all the sites most famous for their natural beauty, and the story of the ancient convents and abbeys of the Provençal seaboard is told by

* "The Maritime Alps and their Seaboard." By the Author of "Vera," "Blue Roses," &c. London: Longmans, Green & Co. 1885.

the writer, though not, we believe, a Catholic, in a spirit of sympathy which leaves Catholics nothing to desire. The two islands of Les Lerins in the Bay of Cannes, called by the country people "the rosettes of the sea," are consecrated by the memory of St. Honorat, who built a great monastery there in the fifth century, and the life of the saint furnishes material for a fascinating chapter. The following description of the spring flowers in some of the inland valleys shows the writer's appreciation of natural beauty:—

If your visit be not too early in the spring, you will find the milk-wort, the flower of Rogation Days, and if it is later you can gather the hypericum that charms away thunderstorms, and that the monks call *fuga daemonum*. There is in the fields plenty of that pink saintfoin which they esteemed as the "holy hay of the manger of Bethlehem," and which the peasants call *la dame de onze heures*, as the petals remain closed till within an hour of noon. On the walls grow quantities of the small purple muscari, the grape-hyacinth that smells like a baby's mouth, and in the fields you find the other kind, that has no perfume, but a large feathery tuft. The little woods are blue with hepaticas, primroses linger about their edges, while on the sunny banks the urospermum shows its globe of light, and the bee orchis the velvet of its lips. The peach-coloured cistus—the *fleur de St. Jean*—flowers on the rocky ledges; the sword lilies push bravely through the corn, the large periwinkle and the lesser one (the flower of Jean Jacques Rousseau) trail beside the stems of the oak-trees, euphorbias of the most brilliant green spring up among the very stones of the road, the tulips lure you down into the damper fields, and you can fill your hands with allium looking like snowdrifts, or with the pink convolvulus, the blue flax, and the aromatic purple thyme.

On the Track of the Crescent.—A more remote corner of Europe has been traversed by Major Johnson,* who recounts in lively fashion his experiences of travel "from the Piræus to Pesth," in Constantinople, Greece, Roumania, and Hungary. Among his most agreeable reminiscences are those of social life among the rural magnates of the latter country, and of his enjoyment in their country mansions of the far-famed Magyar hospitality. Illustrations of scenery and costume from the author's sketches add to the interest of a pleasant volume.

Suakin in War-Time.—Mrs. Sartorius' experience of the Soudan † was confined to Suakin, where she passed three months during the disastrous campaign of Baker Pasha, on whose staff her husband was serving. Hence the interest of her simple and unaffected narrative is rather historical than geographical, recording the daily life and feelings of the actors in one of the many tragedies whose memory darkens that fatal region. Her stay was coincident with the heroic though despairing defence of Sinkat, and she quotes what she terms "the memorable answer" of Tewfik Bey, its gallant commandant, when summoned to surrender: "My life is the Khedive's,

* "On the Track of the Crescent." By Major E. C. Johnson. London: Hurst & Blackett. 1885.

† "Three Months in the Soudan." By Ernestine Sartorius. London: Messrs. Kegan Paul & Co. 1885.

my honour my own, my daughter the Effendina has promised to look after, and therefore I am determined to defend the place to the last."

As Suakin itself was more or less invested on the land side during the same time, a few camel and donkey rides into the desert were the only expeditions possible in the adjoining country, so that Eastern town-life, with the additional variety of military excitements, furnishes the material of the book. The lady's brief experiences of Cairo are well and brightly narrated, and we are glad to perceive that among its institutions she notices "the Catholic convent, where an excellent education is given at a very cheap rate."

Manchester Geographical Society.—The publication of the first volume of the "Journal" of the Manchester Geographical Society represents the successful inauguration of an enterprise, the idea of which originated five years ago with the Bishop of Salford. Hitherto, as Mr. Hutton stated in his inaugural address to the Society, Great Britain, the most mercantile nation and greatest colonial empire in the world, has only had one Geographical Society, while France and Germany have each twenty-four, and in Portugal, Belgium, and even Africa, there are four or five. Manchester now has secured the honour of founding the second such English organization, a distinction to which her position as a great manufacturing metropolis, the seat of a world-pervading commerce, fully entitles her.

The Congo Free State.—The number contains, with other interesting matter, an eloquent address from Mr. H. M. Stanley, giving a survey of the Congo and its basin, in their relation to the hydrographical system of Africa generally. A sketch-map of the new Free State is added, into which is inserted an outline of Great Britain on the same scale, in illustration of the vastness of its territory. The extent of the Congo Free State, throughout which universal free trade has been established, as the result of the Conference of Berlin, is estimated by Mr. Stanley at 900,000 square miles, four and a half times the area of France, or about seven times that of the British Isles. Of this vast territory 600,000 square miles would seem to be land of the highest productiveness, occupied by about 30,000,000 of inhabitants, and communications will be facilitated throughout this region by 4,000 miles of navigable streams, and 41,000 square miles of lakes.

Steam Communication on the Congo.—Two lengths of railway, both on the north, or right bank, are required to turn the cataracts of the Lower Congo, one of fifty-two miles, from Vivi to Isangila, and one of ninety-five miles, from Manyanga to a point opposite Leopoldville, the cost of the total length of 147 miles being estimated at £500,000. The construction of these lines is all that is required to place the whole of the Upper Congo region, with its numerous secondary rivers, in direct steam communication with Europe.

Physical Geography of Persia.—Another very interesting special address, reported in the "Journal" of the Manchester Geographical Society, is that of Mr. Arthur Arnold, M.P., on our Commercial Opportunities in Western Asia. He begins by pointing out the future importance of the empire of Persia, with its territory of 600,000 square miles, as yet almost undeveloped commercially or agriculturally. With a high plateau for its interior, at an average elevation of 4,000 feet above the sea, its three principal cities, Teheran, Ispahan, and Shiraz, are separated from each other by mountains whose lowest passes are twice that height.

This physical fact [says the speaker] dominates the politics and the commerce of Persia. It renders England powerless in the north of that empire, and Russia powerless in the south. It makes it idle to talk of the construction of a railway from the Caspian Sea to the Persian Gulf. It makes Persia, like Afghanistan, subject to severe cold in winter. At this time of the year the greater part of the interior is covered with snow. I have ridden for twenty-three days in succession between Teheran and Shiraz over snow.

The salt deserts, which occupy part of Persia, are scenes of inconceivable desolation; but much of the remaining area of barren plains might be rendered productive if the melted snows could be stored up and rendered available for irrigation. It would seem as if they must at present percolate under ground, since Persia is scantily supplied with surface water. Mount Damavend, a silent volcano, covered with perpetual snow, towers to a height of 19,260 feet in the landscape near Teheran, and Mount Elburz in the Caucasus, is even higher, yet these great glacial masses feed no considerable watercourses.

Trade Routes.—The only navigable river in Persia is the Karun, on the southern slope, joining the drainage system of the Tigris and Euphrates near the head of the Persian Gulf. This river would only require the cutting of a short canal section, flanking a break of rapids, to render it the great thoroughfare to Southern and Central Persia, navigable at all seasons to Shuster, within 275 miles of Ispahan, the commercial centre of Persia. At present the route to that city from the Persian Gulf is 519 miles overland from Bushire *viâ* Shiraz.

Between Shiraz and Bushire [says Mr. Arnold] there are twenty or thirty miles of almost unimaginable difficulty. I think myself a fairly good walker, but I could not get over that distance in two days. Perhaps in Europe there is no worse walking than upon the cinders of Vesuvius. But that is smooth compared with the way to Shiraz. Imagine the sides of rocky mountains blown down with dynamite, and that you are invited to pass on horseback for miles over the *débris*, and to get up the rugged, almost precipitous sides of the cliff, and you will form some notion of the track by which the bales of Manchester goods pass into Persia on the backs of mules. Yet in 1882 cotton goods from Manchester, worth £300,000, entered Shiraz, mostly by that abominable road, where to make a mile an hour is fair work.

Owing to these difficulties, and the greater facility of communica-

tions with the Caspian, English trade is being gradually driven out of Persia by that of Russia, and an English merchant, a member of the only firm trading with South Persia, writes, on January 16, 1885:—

Our trade in Manchester goods is a thing of the past, and for some years we have not shipped one bale to Persia for fifty we used to send. We suffer from our Government representatives having a lack of vigorous support from home, and the weak-kneed manner in which they protect and push our commercial interests. The natural highway into Southern and Central Persia—the Karun river—is not yet allowed to be used, and the resources of Mesopotamia are choked by the Turks still only allowing two English steamers to ply on the river between Bussorah and Bagdad, and these two not even permitted to tow barges.

Opening of the Euphrates Valley.—Mr. Arnold goes on to urge the necessity for taking some steps towards removing the restrictions on the navigation of the Euphrates and Tigris. These rivers, which are connected near Bagdad by a canal, now out of repair, but navigable not many years ago by a steamer 120 feet long, offer great natural facilities for commerce. The Tigris is navigable at all seasons for 600, and at most seasons for 900, miles, and the Euphrates, though obstructed in its lower course by dams and water wheels, could at a small cost be rendered navigable to Balis, 1,000 miles from the Persian Gulf, where it is still 300 yards in width. An International Commission, on the principle of that for Danubian navigation, is the remedy suggested by the speaker, who says he has pressed it, and will continue to press it, on the attention of the Government, believing that a great and immediate extension of British trade would ensue.

The Afghan Border.—The "Proceedings" of the Royal Geographical Society for May contain an interesting paper by Major Holdich, R.E., one of the officers employed on the Afghan Frontier Commission, in which he describes the region suddenly become so interesting to the rest of the world. The first view of Herat was obtained from Parah, a village on the range of hills to the south of the valley, which rise there only 500 or 600 feet above it. From this point the city was visible, spread out on a wide open plain to the east, "dark here and there with thick lines of fruit trees whitened here and there with long lines of bastioned walls, lit up by the western sun, and the glint of minarets, and the curious patchwork of light and shade which denote a great city." The walls are surrounded by villages grouped at their feet, and seemed to the spectators to be commanded from several points.

North of the city, the Paropamisus forms a lofty chain, with peaks some 10,000 feet above the sea, increasing in height as they trend eastward towards the central mass of the Koh-i-Baba, but up to the end of December only slightly powdered with snow on their summits. Towards the western end of the valley they diminish in height, forking into two ranges of minor hills. Many large villages were passed, surrounded by a network of mud walls, giving them the appearance of miniature fortresses.

The Debatable Land.—After crossing the Heri Valley, the Commissioners found themselves in the somewhat vaguely defined region known as the Badghis, occupying the northern slope of the Paropamisus between the Heri and the Murghab. The aspect of the country, looking northward from the crest of the mountain, is thus described :—

It seems as if a vast sea of liquid sand had been violently agitated by a passing storm, and then suddenly been consolidated by some miraculous agency ere the waves had time to fall. It is a sand glacier, stretching northward and westward as far as the eye can reach. Each many-folded wave of hills looks diminutive from the height or distance of the Koh-i-Baba, or the Bund-i-Turkhestan, but a nearer acquaintance with these waves dispels the illusion. They rise from 200 to 600 feet immediately above the valleys, and about their indefinite central watershed; between any two great streams they reach 1,000 feet or more.

The soil is not true sand, but a sort of sandy clay described as marvellously fertile, the lower slopes being knee-deep in grass and spring, and spangled with flowers like an American prairie.

The most important strategical point in the district is Ak Tepe (white mound), north of Penjeh, where the converging streams of the Kushk and Murghab run in trough-like valleys, leaving a triangle of raised steppe between them. The "White Mound," a natural elevation about 150 yards long by 70 or 80 wide, rising abruptly in the valley of the Murghab to a height of 100 feet, or nearly that of the adjacent plateau, dominates all the roads leading to Herat, and bars the entrance of the two most fertile valleys north of the Paropamisus. The Sarik Turcomans who occupy this district are described as a very pacific population, being, indeed, without arms, though possessing implements of husbandry. The women are skilled in many textile arts, and especially in the manufacture of a highly-prized fabric called Agary, made from the hair of newly-born camels, boiled in milk for several days until it forms a sort of viscous pulp capable of being drawn out into silky threads of gossamer fineness.

The Trans-Caspian Territory.—The *Revue des Deux Mondes* of May 15, 1885, contains an interesting paper on the Turcoman country, by M. H. Moser. The newly conquered Russian provinces, forming the Trans-Caspian territory, are ruled by a military governor (recently General Komaroff), with his head-quarters at Askabad. The territory is divided into three districts—Manghichlak, inhabited by Kirghiz, by Adais, and by about 400 kubitkas (tents) of Turcoman Tekkés; the Atrek, reaching to the Caspian on the west, and the Persian frontier on the south, inhabited by the Yomond, and Goklan Turcomans; Askabad, extending from Kizil Arvat to Baba Dourma, and containing the Akhal Oasis, inhabited by about 100,000 Tekkés, the fiercest and most savage of the Turcoman tribes. Their territory is a fertile strip of land of irregular width, extending for about 160 miles along the northern foot of the Kopet Dagh, the streams from which are skilfully distributed over its surface in canals,

called ariks (veins), with an art originally imparted by the Chinese to their ruder neighbours.

Wherever water fails [says the writer] the oasis is interrupted by sands and rocky tracks; the villages are grouped along the ariks, sometimes in large agglomerations; the whole country bears traces of an earlier civilization, and ruins are visible of many considerable cities, as to whose origin the natives have no ideas or traditions.

The distribution and management of the water supply is controlled by a council of elders, called arik-aksakals (whitebeards of the canals), who regulate the question of cultivation. The water is principally drawn from subterranean springs in the lower slopes, whence it is conducted in underground conduits, called kanots, to the plain.

Tekké Turcomans.—The district contains 60,000 kikitkas, all belonging to the extended family of Tekkés (a word signifying "goats"), which comprises also the inhabitants of the Merv Oasis. The Tekkés are divided into two principal tribes—Otamish and Toktamish; and subdivided into four clans—Bek, Vakil, Bakchi-Dach-Ayak, and Tchitchmas, which again ramify indefinitely. The chieftainship of the clans is hereditary, but the general ruler of the district is an elective magistrate. There are sedentary Tekkés called Tchomrys, and nomads called Tcharvas, the former having no flocks requiring change of pasture. The men scorn all rural labour, formerly left to their Persian slaves, and now performed by their women.

Horses of the Steppe.—The Turcoman horses, traditionally supposed to be descended from Bucephalus, are remarkable for their endurance, as they can travel sixty or seventy miles a day for a long continuance on the scantiest of rations. The saddle-horses are reared and kept entirely among the dwellings of their masters; hence they are very gentle with men, though fierce to each other. Except when on long journeys, they are always swathed from head to tail in a triple covering of heavy felt body-clothes, with the object of keeping them in lean condition. Great fineness of skin and lustre of coat result from this treatment, and tints of sorrel and chestnut, glittering in the sun like bronze and old gold, are produced amongst them, such as are never seen elsewhere. They are, however, anything but shapely animals, being low in the quarters and generally ewe-necked, while the mane is destroyed by the artificial coverings worn.

Border Forays.—It was the fleetness of their steeds that enabled the Turcomans to make those barbarous alemans, or raids, which rendered them the terror of their neighbours. Organized into volunteer bands under a recognized sirdar, or captain, they swooped at night on some helpless village, and after revelling in a hideous orgie of slaughter, carried back with them into slavery such of the inhabitants as survived. The slave market of Merv was frequented by merchants from all the surrounding country for the purchase of these unfortunate captives. The Persians, called contemptuously Kizilbachis, or "red-heads," were the greatest sufferers, and a

perpetual guerilla warfare was carried on along the frontier. The advance of Russia, by pacifying the Turcoman border, has, up to this, done good service to the cause of humanity.

Tekké Fortresses.—The celebrated fortress of Geok Tepé (sky-coloured mound), unsuccessfully assaulted by General Lazareff in 1878, and captured by Skobelev in 1880, was the stronghold of the Akhal Oasis. A huge clay embankment, entered by a single gate, it enclosed a camp of 9,000 tents, containing 30,000 or 40,000 people. A force of 7,000 cavalry assisted in its defence, which was obstinate and sanguinary, 6,000 corpses being found within the citadel. The subsequent slaughter of 8,000 helpless fugitives—men, women and children—must ever be a stain on Skobelev's memory.

All Turcoman fortresses are on a similar model, but are inhabited only at seed-time and harvest, the aoul, or village, at other times following its flocks to the pastures.

The most celebrated Khan of the Akhal Tekkés was Nour Werdi, of the Vekil tribe, who defeated the Khivans in 1855, the Persians in 1861, and the Russians in 1879; and after having annihilated the Sariks at the head of 2,000 Tekkés, was considered worthy to marry Gul Djemal (Rose of Beauty), the richest and handsomest maiden of Merv. On his death, in 1880, at the age of fifty, he was succeeded by his son, Makhtum Khuli Khan; and the influence of his widow, Gul Djemal, whom the Russians were careful to propitiate by judicious flattery, was instrumental in obtaining the submission of that fortress.

Rapid Journeys from Persia.—Mr. Condie Stephen, summoned to London in connection with the Afghan Frontier negotiations, has made a remarkably rapid journey. Starting from Meshed at an hour's notice, on April 23, he reached Shah-rud, a distance of 300 miles, after four days' riding *chappar*, or post, with relays of horses at intervals, and accomplished the further distance of 140 miles to Astrabad in two days in the same way. Crossing the Caspian in a steamer, he took train at Baku for Tiflis, a twenty-seven hours' journey, whence a mountain drive of 130 miles across the Caucasus to Vladikavkaz was accomplished in sixteen hours. The Russian railway system was then reached, enabling him to arrive in London on May 12. The same journey has since been made by Colonel Stewart, also of the Frontier Commission, in the still shorter time of sixteen days from Meshed to London, beating the post by six days.

Notes on Novels.

Mr. Butler's Ward. By F. MABEL ROBINSON. London: Vizetelly & Co. 1885. (Second Edition.)

THE heroine of "Mr. Butler's Ward" is an Irish girl, who bears the obsolete name of Deirdré, no longer familiar, save to students of early Irish legend and poetry. The daughter of a land-bailiff, Thomas Dineen, murdered in revenge for an eviction, the tragedy of her childhood overshadows all her later life, and is most artistically made the pivot of her destiny to the end. The ghastly incident of the sensitive child of eight years old accidentally discovering the body of her father, whom his murderers had buried, still living, in a ploughed field near his house, is, we believe, historical, and is powerfully and dramatically told. Haunted through life by the recurring horror of this dark memory, Deirdré becomes unconsciously the instrument of long-delayed retribution on the authors of the deed, through a fatal complication, in which her own happiness is shipwrecked and her reason overthrown. The convent of Bonsecours, where the heroine receives her education, is a charming picture; and the lonely girl's love for its inmates is touchingly portrayed. The scenes of Irish life are graphically and vividly depicted, and Irish character throughout treated with sympathy and insight. That of the heroine especially, with its native depth of feeling and emotion, solemnized, as it were, by its background of lurid memory, is a powerful and well realized conception.

Heart Salvage by Land and Sea. By MRS. COOPER (Katherine Saunders). A new Edition. London: Chatto & Windus. 1885.

MRS. COOPER has the rare gift of sympathy with the poor, with the weak, with the old; with those who, having neither wealth, nor youth, nor beauty to recommend them, are apt to go through life slighted and misunderstood. In this collection of charming stories (most of which we fancy have appeared before in periodicals), she begins by claiming our interest for a hero, who by all the laws of current fiction, is anything but heroic. Tom Bailey, of Wick Common, is a little middle-aged City clerk, with a large family, a short temper, and a long struggle to make both ends meet. Mrs. Cooper would, by the way, confer an inestimable boon on City clerks in general, if she would inform them how to keep a wife, ten children, and two servants, in decent circumstances, on a salary of £250 a year—that is, at something less than eighteen pounds per head. The obvious impossibility of so doing, does not, however,

prevent "By the Stone Ezel," from being a very pretty tale, true in the main to human nature, and which must surely have fulfilled the author's desire, of softening the hearts of some of our prosperous Jonathans towards the less fortunate Davids of their youth.

One of the shorter stories, concerning a little girl whose parents are in India, is most pathetic. "Little Missy" is put to board at a seaside town, and by a combination of circumstances, the stipulated money is never paid. The poor child is at first neglected, and at length her very food begrudged. The wistful little heart turns towards India, and twice a day she goes through the following scene with her solitary friend the coastguard:—

"Good morning, Thomson. Have you seen any ships from India, Thomson?"

Correcter than a grammar-book she always spoke.

"No, missy," I'd answer; "I can't say as I have, missy."

Then her mite of a finger would point up to my telescope, and she'd say—"Will you let me see myself, Thomson, if you please?"

"Certainly, missy."

Down on my knees I'd have to go, and, resting my telescope on my other knee, brought it just on a level with her eye.

In her long and hard looking with that small blue eye of hers, her proud little hand 'ud rest sometimes on mine, and fasten tighter and tighter, without knowing it, round one of my sausage fingers.

If any ships were to be seen, I was asked if I was *sure* none of them was from India. If I said I *was* sure, or there were none to be seen, she would thank me and go home as fast as her little legs 'ud carry her; for it was supposed by the people she was with that she only played a little way down the street; so she had to be back before she was found out—poor little mite!

Of course the ship from India does arrive at last, for Mrs. Cooper, having skilfully harrowed our feelings, always finds a soothing balm to pour in at the end. So, perhaps for this reason, the last sketch in the book is a gem for faith, and courage, and cheerful content. No need to tell us, "His Honour's Bounty" is a true story. Truth is written in every line, and Biddy, the "little Irish widdler, is not only a credit to her country," but a credit to the writer who has translated her so faithfully to the outer world. It is a book that may be recommended to all.

A Laodicean; or, the Castle of the De Stancy's. A Story of To-day.

By THOMAS HARDY, Author of "Far from the Madding Crowd." London: Sampson Low & Co.

MISS POWER, a modern young lady, highly educated, is mistress of herself and forty thousand a year; is partly Puritan, mostly *parvenue*, and wholly woman. Spite of certain Greek sympathies, she dwells in a romantic half ruined Gothic castle, purchased from the quite ruined De Stancy's by her late father—successful railway contractor, a Baptist, and an M.P. A smart young architect on his travels, through the window of a conventicle,

sees Miss Power in the act of refusing baptism, though minister, congregation and all seem prepared for the ceremony. Later on he makes her acquaintance, while she is sustaining a thesis with the justly disappointed minister. Obtaining permission to view and sketch the castle, George Somerset so wins the lady's esteem, as to be commissioned to restore the castle at a cost of £100,000, subject, however, to a competition with a Mr. Harill, an earlier retainer. The discarded Harill naturally does not love his rival. To him comes a Mr. Dare, manikin or youth, an impish incarnation, who induces Harill to tamper with Somerset's plans, so securing to Harill the earlier half of the work, and Somerset's absence for a clear year—a separation of architect and heiress, which suits Dare's purpose, who is the evil genius of the piece. But we must leave the reader to follow the fortunes of the lovers and the revenge of Dare.

In "A Laodicean," Mr. Hardy is hardly at his best. One never quite sympathizes with the heroine, who smacks somewhat of the "walking lady," and is not a little purse proud, while the fortunes of the lovers themselves are never half so interesting as the capitally limned Woodville, the Baptist minister, of whom we hoped to have seen something more, or dairyman Jinks and the farmers at the King's Arms, Markton, of whom we should have liked very much more. These are after the sort Mr. Hardy handles so well.

It may not unfairly be asserted perhaps that modern fiction scarcely compares to its advantage with the writings of Dickens or Thackeray or Jerrold; but among more modern writers who, while not rivalling the great names of the past, yet without being either silly or sensual, can deeply stir emotion, readers of "Far from the Madding Crowd" will not need to be told that Mr. Thomas Hardy comes well to the front. There are limits to his greater powers, but within those limits we think him of modern men *facile princeps*. No other writer gives us such graphic portrayal of rustic life and character. Idyls of graceful beauty, depicting with strong grasp of subject, the loves, the joys and sorrows of humanity clad in corduroy and cotton: proving once more, were proof needed, despite the distance from Wessex to the West End, that "one touch of nature makes the whole world kin."

Now and then slipping into an affectation such as "the penumbrae of night," Mr. Hardy is withal a charming descriptive writer—a landscape painter, indeed, but no mere word painter. His appreciation of nature's beauties is keen, and he has a quick eye for light and shadow, for sunshine and storm. He loves animals too—one might almost smell the breath of his cows. The "sheep washing" and the "sheep fair" in "Far from the Madding Crowd," are masterpieces of their kind, and neither Landseer nor Dickens would have disowned Gabriel Oak's dogs.

Gabriel had two dogs. George, the elder, exhibited an ebony-tipped nose, surrounded by a narrow margin of pink flesh, and a coat marked in random splotches, approximating in colour to white and slaty grey; but the grey, after years of sun and rain, had been scorched and washed out

of the more prominent locks, leaving them of a reddish brown, as if the blue component of the grey had faded, like the indigo from the same kind of colour in Turner's pictures. In substance it had originally been hair, but long contact with sheep seemed to be turning it by degrees into wool of a poor quality and staple. This dog had originally belonged to a shepherd of inferior morals and dreadful temper, and the result was that George knew the exact degree of condemnation signified by cursing and swearing of all descriptions, better than the wickedest old man in the neighbourhood. Long experience had so precisely taught the animal the difference between such exclamations as "Come in!" and "D— ye, come in!" that he knew to a hair's breadth the rate of trotting back from the ewes' tails that each call involved, if a staggerer with the sheep-crook was to be escaped. Though old, he was clever and trustworthy still. The young dog, George's son, might possibly have been the image of his mother, for there was not much resemblance between him and George. He was learning the sheep-keeping business, so as to follow on at the flock when the other should die, but had got no further than the rudiments as yet—still finding an insuperable difficulty in distinguishing between doing a thing well enough and doing it too well.

We have no space for more of the young dog's doings, nor for more than this brief excerpt from rustic talk, so delightfully quaint and shrewd:—

"Faith," said Coggan, in a critical tone, turning to his companions. "The man hev learnt to say 'my wife' in a wonderful nateral way, considering how very youthful he is in wedlock as yet—hey, neighbours all?"

"I never heerd a skilful old married feller of twenty years standing pipe 'my wife' in a more used note than 'a did,'" said Jacob Smallbury. "It might have been a little more true to nater if 't had been spoke a little chillier, but that wasn't to be expected just now."

"That improvement will come with time," said Jan, twirling his eye.

Mr. Hardy's rustics have an honest way of speaking out plainly what they think, but in no ways suggestively; and herein, Mr. Hardy is very true to nature. Yet, in looking through Mr. Hardy's books, in the interest of especially young Catholic readers, we must warn that he sometimes resorts to expedients beyond the requirements either of art or of his plot, though we admit he has a dainty way of lifting his characters off delicate ground. We know nothing more repulsive in modern fiction than the Bishop of Melchester, in "Two on a Tower," being entrapped into a marriage, to save the good name of Lady Constantine. That ulcers exist in moral as in physical life no one doubts; but to photograph them cannot be called art, and to gaze on such photographs can benefit no modest youth or maiden. To show how bright, how innocuous, and how admirably versatile Mr. Hardy can be, we need only mention "The Hand of Ethelberta," an exceptionally clever book. Ethelberta attending to her three suitors at once at the Beau Sejour is comedy of a high order. He could and ought to write us a first-class comedy, something in the spirit of "Speed the Plough." Taking Mr. Hardy's books as a whole, we should not indeed give them to

young people, but think there is nothing in them to threaten either the faith or the morals of adult and practical Catholics.

A Bit of Human Nature. By DAVID CHRISTIE MURRAY.

London: Chatto & Windus. 1885.

THIS volume takes its title from the study of a Chinaman, introduced with novel effect into a story of the courtship of an English youth and maiden amid the surroundings of country life in Belgium. Mr. Christie Murray's power of characterization enables him to give life and reality to the figure of Chi Lung despite its strangeness, and to convey, amid many humorous touches, the pathos of its blank isolation. The young Englishman's sensations during his first boar-hunt in the Forest of the Ardennes, his tremulousness in anticipation, and the sudden steeling of his nerves at the critical moment, are equally well described, and the ludicrous though perilous situation from which he rescues one of his Belgian hosts is in the author's best comic vein. As a specimen of his shrewd moralizing strain, we give his reflections on love at first sight:—

There is no disguising it. Certain faces are fate to certain people. The right man sees the face, sees it long enough to recognize it, and his business is done—he is disposed of. Such cases must always be rare, because the imperative compulsion is not given to every woman, and because there may be but one man in the world on whom the face operates with that supremacy of power which creates love at first sight. The poets and the story-tellers have abused this truth, though it is not to be wondered at if they have chosen somewhat too often to dilate on a theme so charming.

"The *Lively Fanny*," the second story bound in this volume, treats of the exposure of an Irish fortune-hunter by the shrewd good sense of an American millionaire and his sister, whose yacht, after a cruise round the world, runs down a smaller craft, in the lives of whose inmates they thus intervene.

Diana of the Crossways. By GEORGE MEREDITH. London: Chapman & Hall. 1885.

"DIANA of the Crossways" appeared first as a serial in the pages of the *Fortnightly Review*, and attracted considerable attention from the singularity of its phraseology and obscure elaboration of its style. Indeed, one scarcely knows whether to review it as a novel, an exercise in the philosophical pedantry of the nineteenth century, or a historical sketch under the disguise of fiction. Perhaps in the latter view of the book may be found some apology for its moral shortcomings, and its treatment throughout of a false position from a false point of view. For the heroine is the scarcely veiled presentment of one of the most celebrated social queens of the last generation, dazzling alike from her beauty, her

position in the world of fashion, and the arrowy wit she inherited as the birthright of her race. All the romantic misfortunes of her career, as faithfully portrayed in these pages, her unsympathetic marriage, resulting in the scandal of a public trial involving the name of a prominent statesman, her separation from her husband, and subsequent reign as a more or less tarnished goddess in the Olympian circles of London fashionable society, are historically true, as are also her literary successes and political influence. Reckless and impulsive, surrounded with declared admirers, she is represented as playing with fire, and owing her escape with wings, if not quite unsinged, yet at least not totally consumed, rather to accident than to any guiding principle of conduct. But the great artistic blot on the book is the introduction of an incident the treatment of which argues a strange moral obliquity. The heroine, whose character is described throughout as full of nobility even amid its errors, is made to sell a political secret, entrusted to her in the most intimate confidence, to the editor of a journal for a sum of money. When we add that this perfidious Delilah, who is afterwards described as the noblest of her sex, is at the moment only awaiting her husband's death to marry the man she thus betrays, we shall have said enough to show what a strange jumble of sentiment and morality is contained in the book. Its style is marred by a total absence of simplicity and perpetual straining after recondite meaning, while the dialogue is of the same enigmatical character intended for wit.

A Perilous Secret. By CHARLES READE. Two vols. London : Richard Bentley & Son. 1884.

IT is little more than a year since Charles Reade died, and this, the latest of his works, was published after his death. A successful writer of fiction has a wide circle of mourners; and it is impossible to criticize severely, or perhaps even justly, a posthumous work proceeding from the pen that has frequently delighted our leisure, and is now laid aside for ever. Although the literary career of Charles Reade was commenced comparatively late in life, he has supplied the reading public for nearly thirty years with a succession of striking tales. In looking back upon his work we cannot set him side by side with the greatest novelists of his generation, but he assuredly is entitled to a place in the second rank. His fame is that of a literary knight-errant; wherever he discovered a social abuse he burned to redress it, and in several of his most celebrated works, notably in "It is Never Too Late to Mend," and "Hard Cash," he made fiction the effective instrument of attack upon some evil which he regarded as a disgrace to our civilization.

In "*A Perilous Secret*" we do not find any such directing motive, but it is not less agreeable reading on that account. There is here, as in his earlier books, a clear straightforward simplicity of style, and vigour of descriptive power. No one can misconceive

for a moment the meaning of his words, or the motives of his characters. Throughout these pages, indeed, there are many situations in which passion is almost overstrained; and thus, before the full effects are developed in the actors, or realized by the reader, the story passes on to other incidents equally transient, and equally exciting.

This may perhaps be partly due to the fact that, reversing the usual order, the novel was developed from the successful drama "Love and Money," which was the joint production of Mr. Pettitt and Charles Reade. Traces of its genesis may, we think, be discovered in a certain want of continuity in the thread of the narrative, as if the acts and scenes of the dramatized version had been worked up individually, without any very elaborate connection being established between them.

Notwithstanding this trivial defect the story is highly interesting, and cannot be easily laid aside until its mysteries are satisfactorily solved. It is essentially a story of the "sensation" type; fraud, accident, and surprise being the ruling spirits of every chapter. Towards the close, indeed, an incident is introduced which marks the climax of sensational treatment. The heroine, who has just discovered her real father, descends into a coal mine to rescue him from a villanous plot to destroy his life by blowing up the mine. She reaches him only in time to share his fate. The explosion takes place, and many lives are sacrificed; but father and daughter escape with life only to endure the horrors of a prolonged imprisonment in the underground workings, an imprisonment, too, rendered more terrible by the presence of the wretch who had caused the explosion. The sufferings of their terrible position, the frantic efforts made to reach them, and their eventual rescue, are described with pathos and power. It may be questionable taste to introduce into fiction a situation of such terrible anxiety; but there can be no doubt as to the dramatic force with which the author has realized and presented the details of this awful catastrophe.

Ellen Middleton. By Lady GEORGIANA FULLERTON. A New Edition. London: Richard Bentley & Son. 1884.

THIS story first appeared more than thirty years ago, two years before Lady Georgiana Fullerton became a convert to the Church. Now that the hand that wrote it is gone, a fresh interest attaches to many passages in the old pages. In the preface, written last year, we have her own final impression of the results of that conversion—"a happiness which, at the end of a long life, is more deeply valued and gratefully appreciated than even in the first days, when submission had brought peace and joy to her soul." The stately English of the tale and its slow romance of passion, remind us that it belongs to the older style of fiction; none the less, pure English and perfect refinement are refreshing in these days, and so is the writer's revelation of her own delight in nature and her

strong religious spirit. One realizes in sudden detached thoughts that the mind itself is speaking and not the hapless imaginary heroine.

For the first time the sea lay stretched before my eyes. It was rough; the waves were crested with foam; and already I heard them break with that sullen roar, with that voice of the ocean, in which, as in the thunder of heaven, we instinctively recognize the voice of God. . . . The sea was not as I have seen it since, blue and calm, glittering with a thousand sparks of light. . . . It was stormy, wild, restless, colourless from the everlasting fluctuation of colour—brown, purple, white, yellow, green, in turns; billows over billows chased each other to the shore, each wave gathering itself in silence, swelling, heaving, and then bursting with that roar of triumph, with that torrent of foam, that cloud of spray, that mixture of fury and of joy, which nothing in nature but chafed waters combine. O God! I have suffered much . . . but I will thank Thee for the swelling of the heart, for the lifting up of the soul, for the tears I have shed, for the ecstasy I have known on the seashore, in the forest, on the mountain. The heart knoweth its own bitterness; but there is also a joy with which the stranger intermeddles not.

Is not this a perfect sea picture? Though this stately and somewhat formal narrative of a life's trials is cast wide as the poles from any personal experience, we have the author's own word that it was the work of a time when she was on her way to the Church, to which her pen did afterwards such generous service; and amongst many thoughts pointing the way, we may note that word in parting from the unhappy wife, Alice Lovell: "I dare not say she is happy, but I know she is of those who if they mourn shall be comforted; who, if they sow in tears, shall reap in joy; and I remember that a sword pierced through the soul of her whom all generations call blessed."

Anthony Fairfax. A Novel. London: Richard Bentley & Son. 1885.

IT is a new idea to introduce the hero stepping from the door of the county gaol on the day of his release after twelve months' hard labour. Most people think of imprisonment as the heroine thought of it—as public disgrace, unutterably dreadful, far outside the sphere of their life, and having no more to do with their own experience than starvation or slavery. It had come upon Anthony Lingen as a reality that blasted his life, and the story concerns his return to freedom, with a sense of ruin and disgrace.

The gentleman who has dropped out of his proper place is infinitely worse off than the working man. His knowledge is useless; his manner inspires suspicion; his refinement only serves to make him wretched. An outcast, he makes acquaintance with the waste places of civilization, and realizes the blackest possibilities which dog want and disgrace. Anthony was cruelly conscious of what lay in store for him. . . . And what good was his life to him that he should try to preserve it?

All at once, by the will of a distant cousin, he finds himself possessed of a new name, a country-house and a fortune. Anthony Lingen is changed into Anthony Fairfax, with new surroundings

and no past known to the world. Then comes the discovery of his secret, and gossiping circles spread the story like fire, increasing as it goes: Mr. Fairfax had herded with the lowest criminals; he had broken into a bank and robbed a venerable relation, who died from the shock of the family's disgrace; he had stolen his grandfather's will; he had got the Manor House by fraud, and went down on his knees to the real heirs when they found him out; but he would lose his lands and money soon, and be maintained in quieter style in one of Her Majesty's prisons.

And through all the man was innocent, and only hid his secret because he was unable to prove that he had been sentenced after the perjury of false witnesses. How he is finally cleared, and how he wins the woman who believed in him and upheld his courage, we leave the story itself to tell. It is to be regretted that the author did not give Fairfax anything of the patience which raises suffering into heroism. "I am disgraced as surely as if I had done the thing," he says to the vicar. "No doubt for one's own self-respect it is better to know that one is innocent. But there is another side to it. If I had been guilty, I should at least know that I had been fairly treated. The feeling that one has suffered unjustly is as bitter as anything can be. It eats into one like a canker." We all know that this is not the religion of the Sermon on the Mount, nor the spirit of Christ; and it is one of the lessons that a Catholic reader can take from such a book—to mark this contrast between the man's bitterness and the heroism to which faith would have raised such a life. It is a blameless story, that ought to have made one striking volume instead of spreading slowly into three.

The Shadow of a Crime. By HALL CAINE. London :
Chatto & Windus. 1885.

IN this deeply interesting story we are introduced to life among the Cumbrian dalesmen at the period of the Restoration; and the author may be congratulated upon having given a graphic and animated presentment of their life and manners. He has solved, with singular skill, what he calls the *patois* problem; for the language which the peasants use is so far generalized that we can understand it without difficulty, while there is peculiarity enough in the idiom to give local colour to the dialogue. It would manifestly never do to make a Cumbrian shepherd talk pure English, nor, on the other hand, would it be popular to ask English readers to spell out pure Cumbrian. Here is a specimen of the manner in which the characters occasionally speak:—

And Angus he was fair mad, I can tell ye, and he said to Wilson, "Thoo stammerin' and yammerin' taistrel, thoo; I'll pluck a lock of thy threep. Bring the warrant, wilt thoo? Thoo savvorless and sodden clod-head! I'll whip thee with the taws. Slipe, I say, while thoo's weel—slipe!"

Although the reader may not be able to translate every word of the *patois*, yet he surely will not miss the true meaning of a context so forcibly expressed. But it is not for these details, or for the interest of a well-constructed plot, or for graceful and eloquent description of scenery, that this book deserves the praise which we would accord to it. There is a higher quality than is required for these, which Mr. Caine seems to us to possess. He has sounded the depths of a noble heart, and set its treasures before us. In Ralph Ray, we have a character of singular strength and beauty, entirely unselfish, free from all affectation, unmoved by his own perils, but tender and pitiful to others; a man, in fact, whose steadfastness and self-sacrifice rise to the exalted level of heroism. Not so perfect is the author's grasp of the secrets of the female heart. At least, we think that Rotha Stagg, a very perfect young woman, but much too ladylike for her surroundings, would, in the flesh, have known that she really loved Ralph Ray, and not have accepted his nincompoop brother. A still more serious violation of woman's natural law she commits in placing within the reach of Ralph a powerful incentive to surrender his life and liberty to save his mother's farm.

Affinities. A Romance of To-day. By Mrs. CAMPBELL PRAED.
Two vols. London: Richard Bentley & Son. 1885.

THERE is nothing to be said in praise of Mrs. Campbell Praed's last book, unless she is to be praised for promptitude in seizing hold of the newest fashionable departure in the matter of Theosophy, and spinning thereout some five hundred pages of fiction. "Sympathies, affinities and antipathies are mysteries," says the heroine, in one of her interminable conversations with Major Graysett, the hero; and it may possibly mystify Mrs. Praed to learn that Judith is more likely to awaken antipathy than sympathy among those who are condemned to follow her career. She occupies childhood's hour by an endeavour to "resolve life into Aristotle's categories"; she takes up Plato, becomes transcendental, and goes through "a phase of Herbert Spencer, and Comte, and protoplasm." She then makes the remarkable discovery she "could not pray to protoplasm" . . . and so reads "Swedenborg, and afterwards many other mystical books, and then" If the persevering reader goes further he will find this unhappy young woman apparently ready to adore the heart of an electric lamp! Truly a fit end to so dismal a beginning! The wicked hero, Esmé Colquhoun, is a portrait, in questionable taste, of a well-known personage in society, whose portraits by writers of fiction have been multiplied *ad nauseam*. The massive picturesqueness and "too precious" utterances lent to Esmé Colquhoun are wearisome in the extreme, while the more fanciful parts of the picture, as supplied by Mrs. Campbell Praed, are nothing less than repulsive. Imagine a man throwing his wife into a state of

mesmerism, and then forcing her by his will to write "bad passionate poems," which he afterwards publishes for the edification of the world! "*Affinities*" is a book against which we would seriously warn our readers, although to a certain extent it carries its antidote together with its poison. It is so profoundly uninteresting that none but the patient critic is likely to pursue it to the bitter end.

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1. *New Arabian Nights*. A New Edition. 1884.
 2. *The Dynamiter*. By ROBERT LOUIS STEVENSON and FANNY VAN DE GRIFT STEVENSON. London: Longmans, Green & Co. 1885.

READERS who are weary of descriptions of Kensington tea-tables, peacocks' feathers, and the culture of the beautiful, or who, having had the misfortune to come across such a novel as "*Affinities*," require some tonic to restore the mental tone, may be recommended to try either of the two books heading this review. It is difficult to over-estimate the fascination of Mr. Stevenson's style; his delightful irony for ever piercing through a strict outward adherence to the Arabian form of story telling; his humorousness, or his exuberant fancy, which revels in the wildest adventures amidst the most prosaic environment. He waves his wand over London, and forthwith the metropolis, while retaining its familiar external aspects, becomes a "city of encounters," where the most respectable persons may stumble upon mysteries as dark and soul stirring as ever lured Haroun Alraschid and his Grand Vizier through the streets of Bagdad. Leicester Square would seem to be the most propitious spot for strange adventure. It is here that Prince Florizel, of Bohemia, and his friend, Colonel Geraldine (the latter "dressed and painted to represent a person connected with the Press in reduced circumstances"), come across "The young man with the cream tarts," and are by him introduced to the "Suicide Club," on whose execrable president the Prince finds the means of wreaking a salutary vengeance. It is on "the broad northern pavement" of this same square that the "*Dynamiter*" opens, with the chance meeting of two young men after years of separation. Their adventures and those of their friends in search of "The man with the sealskin coat" lead to some extraordinary situations, and the shafts of ridicule which Mr. Stevenson shoots against the cowardly ruffians who have made dynamite their weapon, are among the best things in the book. There is nothing more delicious than the "Tale of the Explosive Bomb." A subordinate agent is sent out with an infernal machine enclosed in a Gladstone bag. He is to deposit it by the Shakespeare statue in Leicester Square, in the hopes of striking a decisive blow against the British Government through the killing and mutilation of some score of women and children. But the unexpected presence of a policeman balks these amiable intentions, and the patriot finds that he is unable to rid himself of the bag, while his nerve is destroyed by the knowledge that it is timed to explode a few minutes later.

Put yourself, I beseech you [says Mr. Stephenson], into the body of that patriot. There he was, friendless and helpless; a man in the very flower of life, for he is not yet forty; with long years of happiness before him; and now condemned in one moment to a cruel and revolting death by dynamite. . . . Ah! how little do we realize the sufferings of others!

Necessity spurs the poor patriot to desperate expedients; he offers his bag first to a little girl and then to a woman, but neither will take it, and when he conceives the brilliant idea of leaving it in a hansom cab, as a reward for honest cabmen, cabby refuses it with contumely, and threatens to drive him off to the police station. How the patriot saves himself finally by the skin of his teeth must be left to the inimitable narrator. "The Dynamiter" is a wonderful shilling's worth, which will ensure the (appreciative) purchaser a couple of hours of the most fantastic enjoyment.

At the end of the "New Arabian Nights" are a few stories which do not belong to the Oriental series. For an exceedingly clever bit of portraiture, we would refer the reader to that of the disreputable poet François Villon, in "A Lodging for the Night."

1794: *A Tale of the Terror*. From the French of M. CHARLES D'HERICAULT. By Mrs. CASHEL HOEY. Dublin: M. H. Gill & Son. 1884.

M. CHARLES D'HERICAULT is familiar with his period, having already published an historical study, "La Révolution," devoting himself not to chronicling the sufferings of the nobility or of the peasantry, which is old ground by this time, but to the new ground of the effect of the Revolution on the middle classes of the cities—those masses of the people who were in no danger of the guillotine, but whose children became what historians call "the generation of the French people who grew up without a religion." We get vivid glimpses of the house and garden of "the virtuous Dubois," in the Rue de Sévres, the saturnalias of the citizens in the streets, the life of the daughters of the bourgeoisie, who learned to see the tumbrils pass unmoved, and who were in danger of losing all the sympathies and instincts of womanhood. Of course, in such a story we make our way to the tribunal, to the prison, and almost to the guillotine; but we leave it to readers to find whether death or escape awaits the hero and heroine. The author works out admirably the manner in which an honest man and a true woman would have turned from revolutionary theories, sick of the effect of its godless maxims in debasing their own nature. Mrs. Cashel Hoey has given us a fluent translation; some of our readers will remember that the story has already appeared in *The Month*.

Notices of Catholic Continental Periodicals.

GERMAN PERIODICALS.

By Dr. BELLESHEIM, of Cologne.

1. *Katholik*.

The Salamanca Theologians.—The February and April numbers contain the continuation of the learned article on the Vatican MSS. of the great theologians of Salamanca. In the present instalment we make the acquaintance of Diego de Chaves (Didacus de Clavibus), an intimate friend of the great Melchior Cano. In 1551 he assisted at the Council of Trent, where he spoke on the sacraments of penance and extreme unction. He favoured the opinion, afterwards left aside by the Council, that "attritio" does not suffice for the due reception of the sacrament of penance. Further, he maintained that the "sigillum" of confession is based not so much on the canonical dispositions of the Church as on Divine right. In conjunction with Cano he was one of the most decided antagonists of Archbishop Caranza, on whose "Comentarios sobre el catechismo cristiano" he has passed an extremely unfavourable judgment. The Ottoboniana in the Vatican Library is possessed of the lectures he delivered in Salamanca in 1547 and 1548. Other MSS. of the Ottoboniana relate to the Dominican fathers Domingo de las Cuevas, Ambrosio de Salazar, and Juan de la Peña. The latter was held in honour, not only because of his many thoughtful theological writings, but also because of his mild and dispassionate character. He strongly opposed Cano, and seconded Fr. Faber and his companions, on whom Cano has been so severe. Treatises which he composed on the sacraments generally, and on the sacraments of baptism and matrimony, are still preserved in the Vatican Library. It is to the Dominican Pedro de Sotomajor that we owe the full commentary on the *Prima secundæ* of St. Thomas preserved in the Ottoboniana. Perhaps Bartholomew de Medina has won for himself still greater esteem; and, in connection with Banez, he will ever rank amongst the most weighty theologians of the Church. The student's attention may be drawn to the fact that Medina, besides his commentaries on St. Thomas, published, in the last year of his life, a text-book of morals in which he proves himself to be an eminent defender of probabilism. It had a wide circulation in Catholic schools, and was soon translated into Latin and Italian. Not a few unpublished theological treatises of Medina are to be found in the Ottoboniana. For the hitherto inedited works of Juan Gallo, Juan Vincente, Dominic de Guzman, Alfonso

de Luna, and Dominic Bañez, the reader may be referred to the *Katholik*.

The Character of Philip II.—The March number contains a treatise of considerable length contributed by Professor Brück, of Mainz Seminary, on a Spanish work which well deserves the attention of English scholars. Fernandez Montaña, Canon of Toledo Cathedral, published in Madrid in 1882 "*Nueva luz y juicio verdadero sobre Felipe II.*" Montaña entirely agrees with M. Gachard—whose splendid edition of the letters of Philip to his daughters was noticed in *THE DUBLIN REVIEW* of October, 1884 (p. 429)—in representing the Spanish King in a way far different from most historians. More than one saint has borne witness to the piety of the King and the zeal he showed in seconding the interests of science and the welfare of his realm. The chapter which treats of "Philip and the Nobility" is deserving of attentive perusal. Leti, Madame de Staël, Schiller, and Forneron alike blame the King for having tried through the Inquisition to destroy the power of the Spanish nobility and enrich himself by their estates. There could not be found a charge more destitute of foundation. Neither did Philip II. use religion as a cloak for hiding his own vices or political aims. The most trustworthy letters of the Venetian ambassadors bear witness to the unfeigned piety of the King, which during his last illness shone forth more splendidly than ever. What is, perhaps, still more worthy of prominent notice is that part of Montaña's work in which he inquires into those grievous accusations concerning the murders of Escobedo and Don Carlos. The acts of the process of Escobedo, as presented by Perez, are far from being trustworthy, since they are not at all the originals, but only extracts which Perez, a bitter enemy of the King, made for himself. And Montaña's juridical examination of these acts seems to deprive them of any claim to being at all reliable documents. The same may be said of the famous letter of Fr. Chaves in which he asserts that the King has right of life and death over his subjects. Montaña's book may be called a storehouse of most solid information on Philip II., and deserving the serious attention of all historians.

2. *Historisch-politische Blätter.*

The number for April contains articles on the old school of painters of Ulm and the recent volume of the Bollandists. English and Irish scholars will be particularly interested in Fr. Remi de Buck's full treatment of St. Foillan, that learned Irish monk and martyr, who became the teacher and friend of St. Gertrude, and who to this day, in not few parts of this country, mainly in Aix-la-Chapelle, which formerly formed part of the diocese of Liège, is held in high veneration. Next to him may be named St. Egelnoth, the fifth monk of Glastonbury who was called to the See of Canterbury.

Bishop Steno.—Another article gives us the biography of Bishop Steno (Stensen) as published by Fr. Plenkers, S.J. The exiled German Jesuit fathers are at present rendering eminent services to the Catholic religion in Denmark. It is only in recent times that the Catholic Church has there been allowed full liberty. Since 1872 the Jesuits established in Copenhagen and several other principal towns began to erect churches and schools, and help on the higher education of Catholic youths. Fr. Plenkers, during his stay in the Danish capital, having been permitted to study in the public archives, has brought out the biography of one of the most remarkable converts of the seventeenth century. Steno, from his manifold discoveries in anatomy (ductus Stenonianus), became a hero in medical science, but for Christ's sake resigned his high position, professed the Catholic religion, and afterwards was appointed vicar apostolic and bishop for the Catholics in Northern Germany. He died at Schwerin, November 26, 1668, in the odour of sanctity. The Grand Duke of Tuscany, whose friendship he had enjoyed for many years, caused his remains to be conveyed to Florence and interred in the basilica of St. Lawrence. In 1883 the European Geological Congress, assembled at Florence, ordered a memorial-stone with his bust to be placed on Steno's tomb.

3. *Stimmen aus Maria Laach.*

In the number of this magazine for March, Fr. Cathrein discusses the moral system of Herbert Spencer, holding it to be without any religion or higher sanction. Originality cannot strictly be claimed for this philosopher, his system having been established in its main features by Kant. Fr. Beissel describes the labours of St. Bernward, bishop of Hildesheim in the tenth century, as an artist, and vehemently refutes the opinion of not a few modern writers who try to deny the privilege of originality to this saint's works, and trace its beginnings from the Court of Constantinople. Fr. Baumgartner, in his usual splendid language, has written two articles on his tour in Iceland which are full of suggestive thoughts and throw new light on a country which up to this day, in spite of the religious revolution of the sixteenth century and its savage sway, bears the impress of a thoroughly Catholic character. Fr. Kreiten continues his dissertations on Molière. In a set of very appropriate articles, Fr. Weniger describes the condition of the Catholic soldier in the British army of India, and praises the facilities which he is allowed in the discharge of his religious duties. A rather curious and striking book came out last year under the title "*Areopagitica*," by Dr. Schneider. The learned author, a Catholic priest, undertakes the somewhat desperate task of claiming the authorship of the "*Areopagitica*" for Denis of Athens, the disciple and friend of St. Paul. This attempt of Dr. Schneider has met with a most unfavourable reception, and Fr. Dreves, too, in a critique in the *Stimmen*, sides with the opponents of it.

4. *Zeitschrift für katholische Theologie.*

St. Thomas Aquinas: "De Pulchro."—Fr. Jungmann, Professor of Theology in the University of Innsbruck, contributes to the April issue a paper of considerable length on a work which has been attributed to St. Thomas by some recent authors, and more particularly by the late Dr. Uccelli. Professor Jungmann clearly proves that these divines are mistaken. The "*Opusculum de Pulchro*" never had place among St. Thomas's works. What Uccelli attributes to St. Thomas as an independent treatise "*de pulchro*" is nothing else than an extract from the saint's commentaries on the writings of St. Denis on the names of God.

Letters of St. Ignatius.—In the same issue we have five letters of St. Ignatius recently discovered by Dr. Otto. Four are directed by the saint in 1550 to Fr. Kessels in Cologne, and one was written to Fr. Arnold Heleus, of Louvain, in 1552. They are chiefly concerned about the German College at Rome which had been established by the saint, and they prescribe the qualities to be looked for in German youths who might wish to enter on the course of studies in that college.

5. *Historisches Jahrbuch der Goerres-Gesellschaft.*

The Election of Emperors and the Holy See.—Dr. Schmid contributes a treatise "On the Election of the German Kings and Emperors and the Holy See, 1558–1620." Charles V. gave rise to serious contests between Germany and Rome when, in 1556, without having consulted the Holy See, he resigned the dignity of Roman Emperor on behalf of his brother Ferdinand. Still more serious contests threatened in 1564, when Maximilian II. succeeded his father, Ferdinand. Just at that time Protestant feeling ran very high. The electors for a great part were Protestants, and took exception to the oath of fidelity and protection as taken by the emperors in Catholic times prior to their coronation, whilst Maximilian himself was suspected of being a strong abettor of Protestantism, although he never could bring himself to take a decisive measure and declare himself openly a member of the new religion. The author has most industriously searched the Roman archives, from which he brings not a few documents bearing on this far-reaching question, whether the dignity of Roman emperor had originated from the German nation and its electors, or from the Holy See. The rise and ever-increasing power of the new religion gradually destroyed the idea on which the Empire had rested for so many centuries. The new ideas by which Protestants were imbued rendered it difficult for the German kings to act in the same way as their predecessors in assuming the crown. Hence it happened that Rudolph II., a man of deep piety and a sincere Catholic, in 1577 did accept the Bull of Gregory XIII. confirming him in the imperial dignity, but a few days afterwards sent the document back to the Nuncio and excused himself for

being unable to comply with the desires of the Pope, declaring himself bound, on the contrary, to make allowance for what was claimed by the electors, princes, and estates of the Empire. The Nuncio therefore returned the Bull to Rome.

Nicholas V. and the War against the Turks.—Dr. Kayer contributes a clever article, based likewise on documents in the Vatican archives, on Nicholas V. and the wars waged against the Turks. This Pope has often been held up to severe attacks for not having sufficiently, as he ought in his quality of supreme head of the Church, supported the armies of the Greek Emperor when attacked by the Turks in 1450. The author has been successful in finding considerable documents which quite establish how utterly undeserved such censure is. Nicholas, on the contrary, left nothing undone to send money and arms to Hungary and Albania, where Hunyady and Scanderbeg sustained the Christian cause against the unbelievers. Nor did he forget the Knights of St. John; they likewise benefited by the Pope's liberality. And not long before the siege of the Greek capital by the Turks, the Pope ordered Cardinal Isidor, of Kiev, to conduct two hundred soldiers with a large supply of money to Constantinople. This solemn apology of Nicholas V. well deserves perusal.

Unpublished Letters of St. Bernard.—Professor Hüffer, of Münster Academy, contributes an article on his labours in French and Spanish archives, where he has been seeking for unpublished letters of St. Bernard. These are the first steps towards undertaking his promised biography of St. Bernard, which is eagerly awaited by all friends of true scholarship.

ITALIAN PERIODICALS.

La Civiltà Catholica, 4 Aprile 1885.

Ancient Astronomy and Primitive History.—This is an interesting article on a highly interesting subject. Astronomy is the science which can claim the highest antiquity. History presents us with three peoples—the Egyptians, Chaldeans, and Chinese—who, in the remotest ages, possessed no ordinary degree of culture, and who were specially versed in this science. Now, two facts respecting their knowledge are worthy of notice. First, that each of these three nations was acquainted with certain high astronomical truths, and at the same time ignorant of others much more obvious; and, what is stranger still, lacked apparently those necessary notions which would seem essential to the attainment of the scientific knowledge which they did possess. For instance, the Egyptians had formed a very nearly correct estimate of the comparative masses of the moon and of the earth. How did they arrive at such an accurate calculation, ignorant as they were of the law of gravitation, and moreover entertaining the erroneous idea

that the distance of the moon was only 328 kilomètres (246 miles) from the earth? The reviewer gives several other marvellous instances of high astronomical knowledge among the ancient Egyptians, noting at the same time discrepancies scarcely conceivable if this knowledge had been the simple result of their own observations. The ancient Chaldeans, as is generally known, were also remarkable, and even famous, for their astronomical knowledge. They believed, on the faith of ancient tradition, that the moon shone by light borrowed from the sun, and were able to calculate eclipses. They seem to have possessed notions, not far removed from the truth, as to the distance between the earth and the sun, moon, and planets respectively. They considered the moon to be the smallest of the planets, and were even acquainted, within a fraction, with its synodical revolution, as well as with the length of the solar year. We know that the ancient Chinese were acquainted with the difference between the lunar and solar years, and could foretell eclipses; in fact, the Emperor Tschong-kong cut off the heads of two astronomers who had neglected to announce one, whereby popular disturbance had been excited. But in the year 221 B.C. the brutal Emperor Tsing-chi-hoang is said to have caused all the books of history and science to be burned, so that their ancient methods of observation and catalogues of the stars were lost, though the science itself remained in high repute.

The other not less noticeable fact is that ancient records concur in representing astronomy, not as in the way of progress from the imperfect to the perfect, but rather as more perfect in its original masters, while with their successors the science became barren and disconnected, and soon degenerated into the dreams of a superstitious and fraudulent astrology. Thus the history of three peoples noted for their science and cultivation in primitive times furnish us with their united testimony to the existence of a primitive science, of which but a few fragments were retained in later times, mixed with vulgar errors—when, indeed, all scientific observations of the heavenly bodies ceased, to give place to the foolish computations of astrology based on certain stellar combinations. This indisputable fact may be commended to the consideration of those scientists who assert as an unquestionable truth the primitive barbarism of mankind and the necessary advance of science. But more than this. After setting aside baseless and fabulous statements of extravagant periods of time, and grounding deductions on reliable monuments, the high astronomical memorials of all these three races must be referred to about the same date, ranging between 2227 and 3400 B.C. The sages revered as masters by all these peoples lived, therefore, about the same time. Some may say that ancient chronology deserves no great credit, but a curious proof can be alleged in confirmation of the accuracy of this supposition. Ancient representations of the Zodiac have been preserved, and in all these the commencement of the astronomical year—that is, the vernal equinox—is referred to the constellation Taurus. This was, no doubt, derived

from direct observation at the time mentioned, when it was true, and it was preserved by later generations, ignorant of astronomy, when it was no longer true, since the precession of the equinoxes had displaced the sun from its original position. Virgil was still singing *Candidus auratis aperit quum cornibus annum Taurus* when the vernal equinox in his day was no longer in Taurus, but in Aries.

Hence, no reasonable doubt can arise as to the early date of the above-mentioned astronomical observations, which can thus be readily fixed. Now, this date coincides with that of the Biblical Deluge. The writer points out the obvious conclusion that Noe transmitted his knowledge to his posterity, having himself derived it from antediluvian times. This explains the marvel of finding the people of Egypt and Chaldea, in the early infancy of their existence as nations, in possession, not only of recondite astronomical truths, but of the perfection of mechanical and architectural skill, as well as of chemical knowledge displayed in the various compounds used by them in different arts. Attention is also drawn by the writer to a marvellous record of the treasured-up science of those primitive ages which has recently been discovered to exist in the Pyramid of Cheops, built when the year began with the sign of Taurus. It is not a mausoleum, as are the pyramids of later times, but a monument embodying the highest truths and presupposing the highest attainments in astronomical and mathematical science; such is the opinion of the most eminent astronomers of our own day. Some very curious and striking traditions are alluded to in connection with this remarkable monument, which give it also a religious signification of much interest and importance.

18 Aprile 1885.

Symbolical Import of Egyptian Pyramids.—A notice in this number of a work by the learned Ernesto Schiaparelli, Director of the Egyptian Museum of Florence, contains some valuable observations on a cognate subject—viz., the primitive monotheism of the Egyptians, which the scientific investigation of their ancient monuments every day more clearly demonstrates, in defiance of the bold and gratuitous theories of rationalist philosophers, who insist on the imperative necessity of gradual progress, not in science alone, but in monotheistic doctrines, which they assert to have been preceded by polytheism in all the primitive races. Schiaparelli, on the contrary, maintains that the pure and elevated ideas of the Divine unity previously held by the Egyptians, at least by all the intelligent classes in early times, declined conspicuously after the domination of the Hykshos, or Shepherds, and became gradually restricted to a smaller and smaller number. Myths assumed an increasing importance, and the teaching of the sacerdotal schools tended to obscure the principle of the Divine unity, which was never, however, wholly lost, though enveloped in a mass of senseless superstitions and idolatrous practices.

The Pyramids, those monuments which have traversed upwards of fifty centuries, he demonstrates to have embodied two truths—the Divine self-existent nature of the Godhead under the symbol of the sun, and the immortality of the soul, which is associated with the setting and rising of that luminary. The Egyptians, he says, beheld in the sun, which every evening sank behind the Lybian hills, and rose, in virtue of a mysterious force, the following morning, the idea of the infinite and uncreated Being who is to Himself the necessary reason of His own existence, and adopted this figure as its concrete form or expression, their belief being similar to that of the other peoples, their brethren, which alone, however, was preserved by the Hebrew people without symbols and without myths.

The Pyramids, as is commonly known, had a sepulchral as well as a religious object, and in their contemporaneous inscriptions reveal the double idea connected with their construction. Thus we have as titles designating them separately, "the sun at the horizon," "the soul," "the souls," "the divine souls;" the sun, called the god Ra, being regarded as the universal soul and lord of all souls. Then we have, in different Pyramids, the names respectively of "the divine seat," "the most divine of seats," "the most pure of seats," "the most luminous of seats," "the best of seats," "the good station," "the station of life," "the arising," "the arising of the soul," "the good arising," denominations corresponding, some to the idea of the Pyramid as a solar monument, others under its aspect of a sepulchral monument. From the arguments alleged, which we can but indicate, no doubt can well exist but that, in the minds of the monarchs who built them, these Pyramids were colossal symbols of the radiant or rising sun, proportioned to the high conception they entertained of the divinity concretely represented under that symbol. At the same time these huge masses expressed in gigantic proportions that desire which appears in all the religious Egyptian texts and inscriptions, and is summed up in the title of their "Book of the Dead," "the coming forth with the light and with the sun."

The satisfaction of this wish is denoted in many funereal representations, where the sun is seen to envelope the mummy with its rays while the soul re-unites itself to it to give it life. The author further demonstrates the symbolic signification of the vast necropolis of Memphis, the most ancient, historically speaking, in the world, proving it to be a gigantic sanctuary of the sun, corresponding to the idea which the Egyptians had of the Divinity, and to their faith in a future life, and concludes by saying, "The double conception, sepulchral or solar, expressed in so grand a form in the necropolis of Memphis, is repeated in all the necropoli of Egypt, not less than in those of other ancient peoples, not excluding some of the most archaic of Central Europe, in which the skeleton of the prehistoric man, with his face turned to the east,

Con ardente affetto il sole aspetta

Fiso guardando, pur che l' alba nasca.

(Dante, "Paradiso," canto xxiii.)

The Italian Enterprise in Africa.—It is natural that the Italian expedition in Africa should meet with no approval from the *Civiltà Cattolica*, for it fails to perceive any justifiable object for which it was undertaken, or any possible advantage which can accrue from it. According to the *Diritto*, Mancini's mouth-piece, this year 1885 was to see the beginning of Italy's self-assertions, which should entitle her to a still more conspicuous position in the society of nations than she already holds. Hence, we may presume, this African venture. As to its precise aim, nothing could be more vague and contradictory than Mancini's speech on the subject, when speak at last he did. If anything could be extracted from his verbose harangue, it would seem to be this: that the armaments of Italy were attracted to the sands of Africa by the desire to diffuse civilization and defend justice. Can any one, asks the writer, credit new Italy with this platonic love for civilization and justice? To see a State, burdened with an enormous public debt, and with a very large deficit in its annual balance, which exceeds all other European States in the heavy taxation imposed on its subjects, which is in a condition of most serious perplexity as to the agrarian difficulty which is starving its people, a difficulty holding out no probable solution, which is internally distracted and its peace perpetually menaced by parties and sects—to see such a State suddenly enamoured of civilization, expending strength, credit, and money in order to fly to disseminate it in the wilds of the Soudan and of Abyssinia, is simply ludicrous. Much more reason have we to laugh when a love of justice is put forth by a State which in Europe holds the primacy in crimes of blood, about 4,000 lives being yearly lost in murders and assassinations.

What civilization, moreover, does it purpose to disseminate on the shores of the Red Sea, since the only civilization which Italy possesses is Christian civilization, which the Mancini Government of the country is labouring assiduously to destroy at home?

We heartily coincide with all these remarks of the writer, and have but one reserve to make. We should certainly never think of taking up the cause of the policy of England, or, rather, of the late Government, in regard to the Soudan, or of finding fault with any animadversions upon it, however severe, in a foreign periodical, but we have cause to complain if facts are misstated, a fault into which, unconsciously no doubt, our valued and respected contemporary has more than once been betrayed respecting English affairs. Suffice it to say, on this occasion, that the battles of Abuklea and Metammeh were not "*fatal combats*;" that Khartoum did not "*fall*," but was seized through treachery; that the English were not "*repulsed by the fierce tribes of the Mahdi*," nor did they "*fall back in disorder, sowing with their corpses the arid sands of the desert*." Such assertions amount to something beyond mere inaccuracies of statement; they are altogether untrue.

FRENCH PERIODICALS.

La Controverse et le Contemporain. Lyon. Mars et Avril.

Everlasting Punishment in Hell.—The promised continuation of the articles by Professor Dupont, of Louvain, on "*Les Peines éternelles de l'Enfer*," does not appear in the April number—the last to hand at the moment of writing. It may be well, therefore, to give an idea here of the line taken in the two articles of February and March. It is worth noticing that the treatment of the subject by M. Dupont, his style and language, are not technical; not formal theology addressed to theologians. On the contrary, the author, thus far at least, addresses himself to those whose want of theological acumen renders them especially sensitive to the more or less popular objections raised at the present time on every side against the idea of an eternity of punishment for sin in the next world. Consequently, he deals with philosophical and common-sense arguments, and hitherto has not entered into the discussion of Scripture texts or of early Christian interpretation of them. The introductory pages are very well occupied with a reference, if somewhat slight, to the grave question of the origin of belief in an eternal punishment. It is highly unphilosophical to pretend to attribute a belief so universal and unanimous among men of all times—a belief so opposed to passion and pride—to illusions, fears, priestcraft, &c.

The dangers to all human society and progress which would follow on the negation of eternal punishment having been alluded to, the writer proceeds to reply to the objections raised with such vehemence and eloquence in our day against this dogma. In the two articles before us we have four such objections stated and answered. The objections are fairly and forcibly put; the replies are perhaps not new—but, indeed, the objections are older by centuries than most people who boastingly use them fancy—but they are pertinent, sometimes profound, replies, and are stated in clear language. The first objection dealt with is the very common one: "*Eternal punishment is incompatible with the goodness of God.*" This objection, which is strongly stated, goes on some false assumptions which are pointed out at length. The author glances, in passing, at the inconsistency of men who, when they attack the notion of a Divine providence, point to imperfections, pain, suffering, &c., as proof that the world is not the work of an infinitely good Creator, but, in order to deny hell, cry out that God is too good. The mystery of the existence of evil is indeed linked with the question of its punishment. Reason does not show, and revelation denies, that the goodness of God is opposed to the punishment of evil in the next, or to permitting its existence in this, life. The great error of this popular objection is that it supposes eternal damnation to be, as it were, an arbitrary disposition of God, the falseness of which supposition is shown at considerable length:

"L'homme seul est l'artisan de son malheur éternel." This, of course, is the crucial point, and the difficulty it raises subtle and deep, yet it is very well treated in a few pages. Another error which underlies the objection regards the infinity of God's love and goodness. These attributes are indeed infinite, but the application of them *ad extra*, or to creatures, is not therefore infinite: it is also regulated by the demands of His wisdom. God's holiness is also infinite, yet in the present economy it does not destroy all sin.

The second objection is: "The end of all punishment is the correction of the guilty; eternity of punishment would not be"—God, that is to say, can only chastise for the good of man; therefore, not for ever. This objection rests on the false principle that the end of creation is the benefit of the created: it is in reality first and chiefly the glory of the Creator. The end, too, of vindictive punishment has regard to the sanctity of the moral law. And is God's punishment of sinners in the next life to have as natural result that contradiction, a forced conversion? The third objection, however, also a very frequent one, urges that "a limited punishment is sufficient expiation for sin." This, in fact, is the most general repugnance felt by Protestants; not against punishment hereafter, but against the *eternity* of it, and leads up to the question embodied in our author's fourth objection: "Why is correction impossible after death?" The spirit of this last query animates a good deal of English literature on the subject—pervades, if we mistake not, the very latest work we have seen, a large volume by Dean Plumptre, of Wells, "The Spirits in Prison." The author's reply to this last query is, we fancy, not ended with his second article. He does not appeal to Scripture, and he confesses that "reason, left to her own lights merely, is unequal to the task of *absolutely demonstrating* the impossibility of conversion after death." But reason is similarly incapable of proving the necessity of such conversion, and can, on the contrary, say much persuasive of the impossibility of it. The author dwells on the necessity of some term to the period of trial; on the factor essential to the discussion of the question, God's supernatural and unmerited Grace; and, lastly, on the utter change in the *status*, and consequently in the capabilities, of the sinner brought about by death, and the isolation of the soul as considered merely by what reason can suggest—a point which might easily be much more fully developed.

Père Lacordaire as a Spiritual Director.—This expresses one object of an article headed "Une nouvelle Correspondance du Père Lacordaire," which is made doubly interesting from the fact of the writer, the Abbé Perdrau, curé of St-Etienne-du-Mont, having been intimately acquainted both with the writer of the letters and with his penitent to whom they were addressed—a saintly married woman, la Baronne de Prailly. "As a director of consciences," says the Abbé, "Père Lacordaire was a master—*était un maître.*" The article further gives us an attractive sketch of the gifted woman, who died so recently as 1879 in what one may surely call the odour

of sanctity. When the great Dominican met her in 1835, he found her, we are told, "jeune encore, mariée, à la tête d'une famille très-riche, très-brillante, très-honnête, mais pas encore chrétienne." He led her by the ways of mortification and self-sacrificing charity. God completed her generous sacrifice in the sharp fires of suffering. Her prayers, however, had one answer which comforted her: her father, her husband, and some of those whom she most loved became "des chrétiens fidèles." Admirers of Père Lacordaire will naturally care to go from the perusal of the article to that of the volume on which it is founded, "*Lettres du P. Lacordaire à Mme. la Baronne de Prailly*" (Paris: Poussielgue), published this year by Père Chocarne.

Among other articles in the April number may be named: the third part of "*Fondation de l'Ordre des Mineurs*," mentioned last quarter; "*Un Spiritualisme sans Dieu*," by Professor Elie Blanc; a continuation of M. Paul Allard's "*Chrétiens après Septime Sévère*;" an interesting account of the recent Council of Baltimore; and a brief, but suggestive, article on a very interesting topic, "*La Politique de S. Thomas d'Aquin*," by M. des Favières. It gathers together, from the various writings of the great Doctor, his political system, his teaching on the origin of power, the duty of obedience, the conditions of legitimate and good laws, various forms of governments, &c.

Notices of Books.

The Office of the Church in Higher Catholic Education. A Pastoral Letter to the Clergy and Faithful of the Diocese. By HENRY EDWARD, Cardinal Archbishop of Westminster. London: Burns & Oates. 1885.

IN the opening number of this Series of THE DUBLIN REVIEW* his Eminence, in an article on "The Works and Wants of the Church in England," repeated the warning, more than once solemnly uttered by him and by the united English Episcopate, on the dangers attending the residence of Catholic young men at Oxford and Cambridge. The present pastoral letter, issued very opportunely as a pamphlet, goes over the same ground at greater length, embodies the latest pronouncement of the Holy See on this highly important topic, and then, in obedience to the wish expressed in the letter of the Cardinal Prefect of Propaganda, his Eminence of Westminster dwells briefly, but in very thoughtful and weighty words, on his own personal persuasions in the matter. Such a letter as this,

* January, 1879.

backed by the oft-deliberated and unchangingly repeated decision of Rome, is one of those expressions of practical wisdom which are the cherished guidance of good Catholics. The Cardinal Archbishop contemplates, indeed, the possibility of dissent on the part of some parents from his own estimates and views; but for all whom it may concern there can surely be no longer hesitation or choice in the *practical* course to be followed. With this question, however, of *quid faciendum* it is not for us to deal; no private words can add to the value and the import of a long series of exhortations from Cardinals Prefect of Propaganda and from our own Episcopate during the past twenty years.

It may be useful, however, here to note that the attendance of Catholic young men at non-Catholic Universities has alike had the opposition of the present Cardinal Archbishop of Westminster and of his predecessor. This is significant. The two men could not help looking at the question from different points; the same feelings about it could hardly have been elicited in both cases. Of Cardinal Wiseman our present Archbishop writes thus admiringly in the pamphlet before us:—

There was no one who ever manifested so large and generous a sympathy with the conversions that issued from Oxford, and with members of the Anglican communion as the late Cardinal. His learned and powerful writings in defence of the Catholic faith were studiously directed, both in matter and manner, without sacrifice of jot or tittle of the truth, to attract and conciliate the members of the Anglican communion and the writers of the Oxford movement. His zeal for their conversion and his joy at their coming was so generous and so great as to be turned to his reproach. It was the dream of his life to break down the wall of separation between Catholics and those that are without, and to throw open the gates of the heavenly city that all might enter. If ever, therefore, there was any one who, if it had been possible to sanction it, would have rejoiced over an association of prayer for the reunion of Christendom, and the return of Catholic youth to the universities which Catholic England had created, it would have been our late Cardinal. But two things forbade him in any way to accept these invitations—his unerring Catholic instinct, and his keen intuition of the impossibility of combining fidelity to the Divine tradition of the faith with the intellectual deviations and contradictions of modern England. His decision, therefore, on both these questions was prompt and final.

The writer of this pastoral letter, on the other hand, was himself conspicuous in his day at Oxford; and found his way therefrom to the bosom of the Catholic Church. And neither ignorance of Oxford or of its *ethos*, nor want of careful effort to see a *modus vivendi*, nor yet heedlessness, can be ever so slightly imputed to him. "If," he touchingly says, "it were lawful to follow the promptings of old affection, I should be among the first to do so." It is unquestionable, however, that, in spite of many influences and memories, the decision has been carefully made. "The highest authority upon earth," his Eminence adds, "confirms the unchanging conviction of my reason and of my faith." We have ourselves heard a few people speak as if, to take them *au pied de la lettre*, they and not his

Eminence and the bishops were the ones who had entered into all the *pros* and *cons* of this complicated practical question.

The decisions of the Holy See and the acts of the English bishops on the subject of Catholic higher education, cover, as we have said, a period of twenty years. A *résumé* of them is contained in the letter before us, and deserves to be perused. We may only note the perfect uniformity of sentiment and unanimity of language from first to last. *Propaganda* asks in 1884, and has asked *de novo* several times since, that the bishops would after careful thought and consultation send it their opinions. When those opinions have been sent the result has invariably been a confirmation of the episcopal views that "parents are by all means to be dissuaded from sending their sons to the Universities." Rome, all along, considers it *next to impossible* to discover circumstances in which Catholics could, without sin, attend non-Catholic universities. The very last decision received from Rome, dated January 30, 1885, and quoted here in full, repeats once again former language, and repeats emphatically the decision of 1867.

One must not expose oneself to an occasion of sin, says the Rescript, except under pressure of adequate and grave necessity. The Cardinal shows that the plea of necessity can no longer be urged. To this he adds: "My own deliberate conviction, formed by many years of thought and of experience, is this, that the transfer of Catholic youth to the National Universities would not only be an immeasurable danger to the rising generation of our laity, but would also dwarf and stunt the growth and rising studies of all our colleges, and thereby of the Catholic Church in England." And the expression "immeasurable danger" is not exaggerated. Some may think it is; we have met, however, Oxford and Cambridge men, now happily Catholics, who have drawn from their own experience quite as emphatic a judgment as has his Eminence. As to what has been done and may yet be hoped from Stonyhurst and Ushaw and other colleges, if young men will only go to them, we should like to quote, but must refer to the words of the pamphlet. But there are social advantages and there is a glamour around the very name of Oxford which draws many parents to strong but unreasoned desires and conclusions. We need not dwell on the emptiness of the plea with Catholic parents of social advantages as counterbalanced by danger to that faith for which our forefathers sacrificed in turn every social possession; but that there is any special advantage of intellectual culture at the Universities, the Cardinal thus eloquently reminds us of the truth:—

Those who have carefully and closely watched the progress of the studies in our colleges, will know that their growth and advancement in the last thirty years, and especially in the last fifteen, has been both marked and visible. I am not blind to the advantages arising from the wealth which endows the chairs of professors, and provides the means of life-long study for those who give themselves to literature and to science. Poverty is no doubt a hindrance, but the highest intellectual culture has been, and may

still be, found in poverty, and a dead-level of mediocrity may be found endowed with abundant wealth. Study is not a craft or a mystery, and the fields of knowledge are open to all. The intellectual inequalities among men depend on two things—unequal gifts of intellectual power, and the unequal energies of the will in study. There is nothing in literature ancient and modern, there is nothing in science in all its branches, which, given the ordinary intellectual powers and the ordinary measures of energy in the student or professor, may not be mastered in our Catholic colleges. A critical knowledge of Greek and of Latin in all its fulness and minuteness, and a complete mastery of the exact sciences, both in the abstract and in their application, are as fully within the reach of the professors of Ushaw and of Stonyhurst as of Oxford and of Cambridge. There are no privileges nor monopolies in the realms of learning. The records of knowledge are legible to all. Even the lights of genius, when written down for our learning, become universally the heirloom of all students. Given another thirty years, or even another fifteen years, for the rise and the ripening of the intellectual culture of our colleges, and I know nothing in which we shall be behind the advance of our nation and of our time.

It is supposed, however, by not a few good Catholics that the "danger" attending residence at Oxford or Cambridge is a thing of the past; it has gone with the test oaths, forced attendance at worship, and the days of bitterness and persecution. There could not well be a greater fallacy in general, and as to education in particular so great a fallacy, as this. The danger now is not perhaps persecution, open hostility, or indeed intentional interference; there will be no shock of blows nor sense of opposition to warn the young Catholic graduate; the danger now is not violent destruction, but quiet, quick decay: "the decay of faith" against which the timely preacher now raises his voice. Father Gavin enumerates as causes leading to this decay, "indifference to misbelief," "distrust of the supernatural," "dangerous reading," and "mixed marriages." The ingenuous young Catholic will find the first named and the second in his University; but the first is perhaps the most characteristic and would be the most influential with a generous young mind.

This danger in its totality is inseparable from the intellectual atmosphere of Protestant professors and students; it is a danger in the air, it eludes the coarse touch of warning finger, its presence alarms none but the quickest vision. It may sound to some unkind to complain thus of the results of intercourse with amiable and kind clergymen and others, who also make an effort not to offend us. But their influence is active, and the fault is there; it is in their religion or their want of it, in their way of looking at history and at contemporary events, in their sentiments and sympathies, in their good-natured latitudinarianism, their too gentle abhorrence of dogma and of creeds, their often only half-suspected agnosticism, their wholly unsuspected worldliness, their lack of a guiding star, their want of elevation by faith which leaves them with a near horizon bordering all that men care for in a tangible world with a perhaps strong and highly interesting but often speculative concern in theories as to the probabilities beyond; death in any

case, as befits the death of modern enlightenment, being calmly roseate with gleams of "the better hope" or "eternal hope," as you may care to choose. Principal Fairbairn has been writing on "Catholicism and Religious Thought," and he expressly opposes the idea that Protestantism is "a sort of substitute for Catholicism"—Catholicism, as it were, diluted with so much or so little water. The two, he says, "are not simply opposites, but incommensurables;" and we must refer to his own words for his statement, that Catholicism, which covers a man's life from cradle to grave, "claims to be a Religion," and that Protestantism "cannot be truly or justly either described as making or allowed to make such a claim"; and Principal Fairbairn is no Catholic. "*Fas est ab hoste doceri.*" Why not sacrifice something of what advantage Oxford may give a young man rather than send him at a critical age, when his mind opens sensitively to all the influences of learned teachers with European reputations—send him thus to crown his intellectual acquisitions, to imbibe principles and tastes and habits and sympathies, to mould his future, send him thus in the midst of "not simply opposite, but incommensurables," to the jeopardy of his own highest and most sensitive and most precious inheritance?

But space forbids any further reference to the most attractive topic of the exclusive right of a Catholic higher education to be considered a complete education for a Catholic, and the deep importance, on which His Eminence dwells, of Catholic philosophy instead of mere eclecticism in the finishing of a real training of our Catholic youth for an active and becoming share in modern English life. There is the urgent need too of some higher and scientific knowledge of Catholic theology for the coming generation of Catholic laymen—a point on which without doubt the public sentiment of the Catholic laity is not sufficiently sensitive—if indeed it does not need rousing to even incipient interest. We must, however, refer readers to the Cardinal's own sentiments as expressed in this pastoral letter. One short quotation we cannot forbear making:—

It is indeed our duty in all things that lie outside the Faith to become all things to all men in the service of our Commonwealth; but in the custody of the Faith, and in the formation of our youth, it is the duty of parents and of pastors to adhere inflexibly to the ancient traditions of the Holy See. It is sometimes thought even by Catholics that the English people can be won by compromise, or at least conciliated by conformity to their opinions and their practices. All the experience that I possess tells me that there is no greater illusion than this. The people of England expect us to be inflexible in all that makes us Catholics: and they confide readily in those who never compromise. It is what they look for. They do not confide in Catholics who are flexible and yielding, where they look for a firm divergence of opinion and of practice. Next to an immovable firmness in our Faith they look for an unyielding fidelity in the education of our youth. In this they recognize no distinctions of poor or rich. The tradition and duties of Catholic education are the same for all. If anything mitigates the pain I have felt in these past years by seeming to reject the amity and goodwill of Oxford and Cambridge, it has been the knowledge, founded on experience, that in this very act of apparent opposition we both gain and insure the respect of our non-Catholic countrymen.

Institutiones Morales Alphonsianæ; seu Doctoris Ecclesiæ S. ALPHONSI MARIE DE LIGORIO Doctrina Moralis ad usum scholarum accomodata. Curâ et studio P. CLEMENTIS MARC, C.SS.R. Tomi duo. Romæ, typis Philippi Cugiana. 1855.

THESE two large volumes, of nearly 1,000 pages each, profess to be an exposition of the Moral Theology of the great moralist of the modern Church, St. Alfonso Liguori. The learned and laborious author informs us that he began to write, by the orders of his superiors, at the time when his holy founder was declared a Doctor of the Church. The work has therefore occupied some ten years. Its distinctive purpose, he tells us, is threefold—first, to lay before the student the whole of the saint's teaching in morality; secondly, to present it in really methodical form; and, thirdly, to complete and perfect it by full reference to modern questions and the most recent information. A work of this kind, founded on a careful comparison of all the Alphonsian texts and of a multitude of letters and notes from the hand of the holy Doctor himself, known to be in possession of his Congregation, cannot fail to be most interesting and valuable. No one, it would seem, could have a more just title to speak in the name of St. Alfonso than his children, who have given a lifetime to the study of all that he has left.

Nevertheless, we are compelled to confess that, at the very beginning of the book, the learned compiler has been unfortunate. Students of moral theology naturally turn at once to the chapter on Probabilism, and they naturally also expect to find, in such a compilation as the present, a clear, accurate, and authoritative decision of certain difficulties as to the exact views of St. Alfonso himself. In our judgment, Father Marc has not succeeded in giving this. There is little disagreement—probably none at all—among the vast majority of modern moral theologians as to how far it is lawful to follow a "probable" opinion. Stripping the matter of its technicalities, we may put it thus: One can always follow an opinion which is really probable, or take a side as to which there is a well-grounded probability that it is a lawful side, even if there may, perhaps, be a somewhat stronger probability on the other side. Of course, this principle does not apply to cases where it is important that some external result should be produced; as, for example, in the sacraments, in medical cases, and in public matters generally; for in these, safety must be secured. Restricting the proposition, therefore, to occasions on which the question is simply one of the interior goodness or defectiveness of a moral act, we observe that there are two important points in it. First, the opinion in question, to make it lawful, must be "really" probable; if it is only slightly probable, it is not, morally speaking, probable at all. Next, the opposite opinion, which we are justified in neglecting, may indeed be more probable; but if it is *much more* probable, moralists would not allow it to be rejected, because, under these circumstances, its opposite—

the former opinion—has no right to be called probable. This, allowing for imperfection of technical expression, is the view held by, it may be said, every moral theologian at the present moment. It is clearly grounded on weighty reasons, and every other view, whether in the direction of rigorism or of mitigation, is liable to numberless difficulties. We may cite briefly the form in which certain well-known authorities put the principle. "Licetum est," says Father Van der Velden,* "sequi opinionem solide probabilem, relicta tutiori stante pro lege." It is lawful, writes Dr. Bouquillon,† "sequi opinionem vere et solide probabilem relicta tutiori æque probabili vel etiam vere probabiliori." "Licet," we read in the eminent American Jesuit, Father A. Sabetti,‡ "licet sequi opinionem vere et solide probabilem, relicta tutiori quæ sit simul probabilior." And Father Lehmkuhl thus expresses himself:§ "Sequi licet opinionem vere probabilem quæ actionem omissionemve licitam esse docet, etsi contraria opinio, qua illicita putatur, sit etiam probabilis, vel etiam probabilior." Now, we were not unprepared to find the distinguished Redemptorist now before us differing in expression, at least from the authors of whom a few samples are here cited. Whether he considers that he really differs from them in meaning it is not quite easy to make out. He professes to prove, with great elaboration, that St. Alfonso is not a probabilist, but an equi-probabilist; and he states the principle of equi-probabilism (as against mere probabilism) thus: "In concursu opinionis certe probabilioris pro lege, non licet sequi minus probabilem pro libertate;" which may be rendered thus: When two opinions clash, the one in favour of the law and beyond doubt the more probable, and the other in favour of liberty but less probable, the latter cannot be followed. Up to a certain point this proposition expresses exactly what is maintained by all the authors: an undoubtedly greater probability kills a mere "probability;" a "probable" opinion becomes no longer probable in conflict with an opinion "certe probabilior." But then the question at once occurs—Is the principle, thus understood, the whole of St. Alfonso's teaching in the direction of the lawfulness of probabilism? If the author replies that it is, we entirely differ from him. There is a further case—the case actually put by our authors above cited—and it is this: Suppose that the one opinion is only "somewhat more" probable, can you follow, against it, an opinion which is indeed less probable but still solidly probable? The author either says "no" to this, and so (as we think) misreads St. Alfonso, or else he does not treat it at all, and so does injustice to St. Alfonso.

It seems a pity that the learned writer has committed himself to this view, which seems indeed to be the accepted view of the Redemptorist body. We are not unacquainted, of course, with the

* "Principia Theologiæ Moralis," t. i. p. 71.

† "Institutiones Theologiæ Moralis," p. 285. Casterman.

‡ "Compendium Theologiæ Moralis," p. 38.

§ "Theologiæ Moralis," ed. altera, i. p. 65.

voluminous dissertations in the "*Vindiciæ Alphonsianæ*," repeated to some extent in these pages. But it seems impossible to maintain that the expressions of St. Alfonso, in later editions and towards the end of his life, indicated any substantial alteration in his views.

It would be interesting, had we space, to enter into an examination of that theory of "possession" which he transferred from law and from commutative justice into the region of conscience and right and wrong. There is nothing better on the whole subject than Dr. Bouquillon's excellent little treatise cited above.

Although we have dwelt on what we think to be a speculative mistake of the author's, nevertheless it must not be supposed that we do not warmly welcome and admire this laborious work. It seems admirably arranged, it is very full—much more full, for instance, than the treatise of the late Father Konings, of the same Congregation—and the varieties of type make it very easy reading. If we add to this the perpetual and most complete references to the text of St. Alfonso himself, we shall have said enough to let all students feel how necessary a manual it will prove to all who wish to know what the great Doctor says, without the labour of consulting the innumerable editions of his many works on Moral Theology.

Historical Sketch of the Persecutions suffered by the Catholics of Ireland under the Rule of Cromwell and the Puritans. By the Most Rev.

PATRICK FRANCIS MORAN, Archbishop of Sydney. Dublin: M. H. Gill & Son. 1884.

IN the above work, the Archbishop of Sydney has cast much and valuable light upon one of the most interesting epochs of Anglo-Irish history. The Cromwellian war was the period at which the persecution entered fully into the policy of plantation,—a point of interest to those who study the present in the past, since it may be taken to mean the permanent planting of all those unlike factors which have, since then, made the Irish question so difficult, if not desperate, of solution. The appearance of the work is the more timely, since the facts which it puts forward supply—to those who may need it—an excellent corrective of certain impressions conveyed by Mr. Froude's "*English in Ireland*," or the more recent work of Miss Hickson, "*Ireland in the Seventeenth Century*." In the works mentioned, Cromwell is painted as the stern vindicator of justice and of British authority in Ireland. In Dr. Moran's work, he appears as the pitiless Puritan persecutor. Here, it is Mr. Froude's disadvantage to deal with a period in which the main outline of events is so deeply and definitely engraved, that it shows plainly through even when carefully washed over, and retains its expression even when artistically retouched. The Cromwell of fancy may be the champion of English rule against Irish rebellion, but the Cromwell of fact will always remain the champion of Puritanism against all that was Royalist, whether English or Irish, Anglican or Catholic.

To be convinced that the issue was not one of English *versus* Irish, but rather of Puritan *versus* Catholic, it will be sufficient to remember that Cromwell's most determined opponent in Ireland was the gallant Sir Arthur Aston, an English Catholic, while Cromwell's most inhuman ally in Ireland was Morrough O'Brien, an Irish Puritan.

Dr. Moran enters on his task by adducing a number of facts and testimonies proving that, from the very outset, persecution of the Catholic Church in Ireland was distinctly a part of the plan and purpose of the Puritan Government. Of these, it will be sufficient to cite the following two:—The fact that in 1641 (eight years before the expedition of Cromwell) an Act of Parliament was passed to the effect that "the Catholic religion should never be tolerated in Ireland;" and the testimony of Lord Clarendon, a contemporary Protestant historian, that "the Parliamentary party had grounded their authority and strength upon such foundations as were inconsistent with any toleration of the Roman Catholic religion, and even humanity, to the Irish nation." We may add that even Mr. Froude, although the recognized special pleader for the prosecution in all cases of England *versus* Ireland, cites Cromwell himself as boasting,—and in the same breath with which he spoke of "liberty of conscience!"—that he would never "tolerate the Mass in any part of the realm." Thus, the pretty picture serving as a frontispiece for such works as those of Mr. Froude and Miss Hickson, in which we see in Ireland, a Catholic Church, powerful, free, and flourishing, losing its head, and using its liberty for lawlessness, and its power for persecution, until checked by the iron hand of Cromwell, dissolves very rapidly in the clear light with which Dr. Moran fills his opening chapters.

There is no lack of material to show that amongst the Puritans, persecution was eminently a work of religious zeal. The Puritans themselves were the most loud in declaring it, and the most prompt in proving it. Their cruelties were not the mere excesses, which we have come to regard as in some way inseparable from the rough readiness of military methods; they were an accepted principle, a preconcerted plan. The merciless destruction of their enemies was the subject of prayerful deliberations beforehand, and of devout thanksgivings afterwards. Thus to many it will seem that Cromwell adds blasphemy to brutality when, in two of his despatches, he credits the "Spirit of God" with the inhuman massacres at Wexford and Drogheda.* Having proved the existence

* Speaking of Drogheda, he writes: "A great thing, done not by power or might, but by the Spirit of God" (Letter to W. Lenthall, Speaker of English House of Commons). "In this very place (St. Peter's Church, Drogheda) near one thousand of them were put to the sword. I believe all the friars were knocked on the head except two" (Letter of Cromwell). Speaking of Wexford, in which, according to Lingard, 300 women were slaughtered in the market-place, and where, according to the Archbishop of Dublin, "many priests, some religious, innumerable citizens, and two thousand soldiers were massacred," Cromwell says: "I thought

of this purpose animating the Puritan army, Dr. Moran proceeds to show in detail how the programme was executed, and how the work of "rooting out Catholicity" was conscientiously entered upon, and thoroughly done, as far as force, fraud, and fanaticism could do it, in the chief cities and districts of Ireland. At this point, the history of the country becomes a martyrology. The very barbarity of the deeds related, reading as they do like an indictment against human nature, makes the reader rightfully cautious and exacting as to the authorities on which he is asked to believe them, and leads him to set aside with a sense of relief, whatever can be fairly doubted without doing violence to history. The account may be said to rest upon a triple testimony. First, that of the Puritans themselves, as contained in their official despatches, and the narratives of their officers; secondly, that of Protestant authorities, such as Borlase, Clarendon, Ormonde, who lived and wrote at the time; finally, that of priests and religious, many of whom, like Dr. French, Bishop of Ferns, Dr. Lynch, Archdeacon of Tuam, and Fr. Saul, of the Society of Jesus, were eye-witnesses of the scenes they describe.

Out of these materials—the evidence of the persecutors, of the sufferers, and of the onlookers—Dr. Moran has traced in the hard lines of authenticated fact, a blood-chilling picture of the atrocities committed in Dublin, Cashel, Cork, Drogheda, Kilkenny, Clonmel, Waterford, Limerick, and Galway. The friends of martyrs are not usually prone to underrate the sufferings of the martyr, nor are foemen always disposed to veil the crimes and cruelties of their enemies. The atmosphere of persecution may itself be regarded as a distorting medium, in which events are sometimes grotesquely refracted. The sense of personal or political wrong may affect the imagination, and do much to destroy the due balance of judgment. But, when we have made the required correction for all these various sources of error, and when we have exhausted the resources of hostile criticism in discounting the horrors of the period, enough, and more than enough, still remain to cover the perpetrators with everlasting infamy. The very wideness of the area over which the persecution extended, the sameness of features which it everywhere presents, the constant recurrence of the same details, in narratives by different authors and from widely distant centres, all go to guarantee with irresistible force, the substantial exactness of these accounts, and make us feel that we have in them, not mere pleadings of polemic, but the hard indestructible matter of history. In the first part of the work we have a bird's-eye view of the country during the persecution. A very brief *précis* will enable the reader to judge of its character:—

it not good or just to restrain the soldiers from their right of pillage, nor from doing execution on the enemy;" and adds, "It pleased God to give into your hands *this other mercy*, for which, as for all, we pray God may have all the glory" (Letter to Parliament).

In *Dublin*.—Priests and religious imprisoned or banished, altars profaned, churches burnt, Catholics driven from the city, "promiscuous murder of Catholics of every sex, rank, and age" (Letter of F. Nugent); "women hanged, prisoners burnt to death" (Dr. Talbot, Archbishop of Dublin); "for the clergy there was no mercy" (Prendergast, Protestant historian).

In *Cashel*.—3,000 put to the sword, men, women and children slaughtered in the church of St. Patrick by Puritans under Morrough O'Brien, 20 priests slain in the sanctuary, the streets paraded by Cromwellians decked out in sacred vestments, churches burned and images broken.

In *Cork*.—All Catholics deprived of their property, and driven from the city, priests imprisoned and put to death by torture, women and children cast into the river, prisoners shut up in houses and burned to death—more than 2,800 perished.

In *Wexford*.—The city taken by treachery, during a time of truce, garrison of 2,000 put to the sword, 300 women and children slaughtered in the market-place.

In *Kilkenny*.—After its surrender, Catholic inhabitants put to death, churches wrecked, altars profaned, images broken, priests executed. "As to the clergy, they know what to expect" (Letter of Cromwell).

In *Limerick*.—Bishops, officers, men and women hanged, and city given up to pillage and massacre for three days.

In *Galway*.—Catholics driven out, the town pillaged, churches wrecked, altars torn down, images destroyed, priests put to death, sacred vessels and vestments turned to profane uses.

Amongst these scenes of slaughter Drogheda stands pre-eminent, and its siege will probably hold its place in history, as typical of Cromwell's action and policy in Ireland. The city was ably held for the king, by Sir Arthur Aston, an English Catholic. Overpowered by the besieging army of Puritans, and their walls crumbling under the Cromwellian artillery, the garrison submitted on a promise of quarter. No sooner had the Puritans entered the town, than the signal was given for a general massacre. Cromwell boasts that he himself gave orders for all to be put to the sword (Letter by O. Cromwell to Speaker, Sept. 17, 1649). A multitude of the garrison and inhabitants took refuge in St. Peter's church. The church was surrounded and set on fire, and those who rushed out were slaughtered. A large number of women and children sought safety in the vaults. Hither they were pursued by the Cromwellian soldiery, and mercilessly butchered. How ruthless and unsparing was the massacre we learn from the account of a Cromwellian officer, Thomas à Wood, who was himself engaged in it, and whose narrative is given to us by his brother, Antony à Wood, in the preface to the "*Athenae Oxonienses*." He describes how the town was given up to massacre; how the governor, Sir Arthur Aston, had his "brains beaten out;" how the Cromwellians stormed the church, the soldiers seizing little children and making use of them as bucklers, while they ascended the stairs and galleries; how, when "they had killed all in the church, they entered the vaults, where all the flower and choicest of the women and ladies had hid themselves;" how one of these, "a most handsome virgin, arrayed in

costly apparel," knelt before him, and besought him "with prayers and tears, to save her life;" how, moved by her youth and beauty, he took her under his protection, and strove hard to shield her from the soldiery; how, despite his efforts, he failed, and the lady was slain in his arms. As a Cromwellian officer, Thomas à Wood ought to be at least, an impartial witness, and as an actor in that dread day's work, he ought to be a competent one. The fact that he, with all his influence as an officer, and all his courage as a soldier, could not save even *one* "amongst the flower and choicest of the women and ladies," speaks volumes for the completeness and ferocity of the massacre. It is of such a deed that Mr. Froude says: "It is possible that in such a scene women and children may have been accidentally killed." Such accidents, alas! were strangely coincident with the entry of the Cromwellians into the cities of their enemies. Lord Clarendon, who wrote at the time, says that for five days the streets of Drogheda ran with blood, and that "the whole army executed all manner of cruelty, and put every man that belonged to the garrison, and all the citizens who were Irish, *man, woman and child*, to the sword" (Hist. vol. vi. p. 695). The above is but one instance out of many, which prove the accuracy of the judgment passed by Mr. Freeman, in which he sums up the conclusions to which he has been led by an exhaustive examination of Mr. Froude's writings. "History is a record of things which happened; what passes for history in the hands of Mr. Froude is a writing in which the things which really happened find no place, and in which their place is taken by the airy children of Mr. Froude's imagination" (*Contemporary*, September, 1878). Such authors distort, but cannot destroy history, and their pleadings cannot screen crime from the verdict of posterity. Treachery is not tactics, and murder is not warfare, whether the miscreant be Cromwell in Ireland or Nana Sahib in India.

The succeeding chapters describe the action of the penal laws which followed on the success of the Cromwellian war. That the Puritans had as little love for civil, as for religious liberty, is indicated by the fact that more than 60,000 of the Irish race were sold as slaves and shipped to the Barbadoes. The book closes with an Appendix, without which, indeed, to Irish Catholics, it would have been strangely incomplete. In it, the author unfolds what they would have known so well, if no history remained to prove it—and which, like the tale of a father's love, gladdens them not the less in the telling—how the Popes, filled with Apostolic solicitude, watched with never-ceasing sympathy and fostering care, over suffering Ireland in these the darkest days of her sorrow; how the union of the Chair of St. Patrick to the Chair of St. Peter became all the more close, and more loving, and more loyal, the more the powers of hell and heresy sought to sever them.

It would, perhaps, be unfair to close this notice without mentioning an objection, which Dr. Moran anticipates in his Introduction. It may occur to some—especially to those who love peace better

than light, and who would suppress history on the plea of letting bygones be bygones—that the story of the Cromwellian wars is not one particularly calculated to promote that mutual good-feeling between Celt and Saxon, which is so much to be desired in these days of political tension. The author meets the objection by reminding us of the truth, that nothing helps us more to esteem and value our faith than the knowledge of what our fathers have done and suffered to defend it; that the mind of the Church, as instanced in her Martyrologies, has considered this to be the major interest, and that it would be childish to expect her to rob her children of the lesson and example bequeathed to us by the martyrs, on the plea that a recital of their sufferings might hurt the susceptibilities of those who inflicted them. But in any case evil is never born of light. The shortest and the surest road to mutual goodwill between nations is to be found in mutual good understanding. In it the races will learn to know each other more, and distrust each other less. To attain it we require, not to suppress, but to study, each other's history. We have need to grasp more clearly each other's position and to study each other's past. In doing so we come to judge each other more calmly, more fairly, more truly;—above all, when we learn to love truth and right better than our country, better than our politics, better than ourselves. In the long run, the work of Light is the work of Peace, and it is to that work, in all its blessedness, that Dr. Moran has rendered such able and accurate service.

Theologia Moralis. Auctore AUGUSTINO LEHMKUHL. Editio altera ab auctore recognita. In two vols. Freiburg: Herder. 1885.

IN the number of this Review for October, 1884, the first edition of this "Moral Theology" was noticed. Within a year a second edition has been demanded and brought out, a fact which may be taken to testify to the sterling merits of this work, which has been so favourably received in more than one Catholic country. The author has done all he could to improve this second edition and bring it up to the standard of science. We need only call the student's attention to the fact that the recent decisions of the Roman Congregations are duly recorded. The work will be found well adapted to meet the wants both of professors teaching moral theology and of priests who, surrounded by the pressures of missionary life, wish to consult an able leader. BELLESHEIM.

Handbuch der allgemeinen Kirchengeschichte. VON JOSEPH CARDINAL HERGENROETHER. Zweiter Band. Dritte, verbesserte Auflage. Freiburg: Herder. 1885.

CARDINAL HERGENROETHER, in his unwearied zeal to promote Catholic science, has just brought out the second volume of the third edition of his ecclesiastical history. Like the

first volume, which was noticed in *THE DUBLIN REVIEW* in January last, it is a remarkable specimen of painstaking study and thorough scholarship. Beginning from the invasions of the barbarians, its 902 pages bring us to the outbreak of that great social and ecclesiastical revolution commonly styled the Reformation. The main points in this period of nearly a thousand years deserving the student's attention are the great Popes of the Middle Ages, the development of Catholic science, and the separation of the Eastern Church from the centre of unity. Owing to his extensive studies on Photius, which the Cardinal published in 1867 in four bulky volumes, and his high qualities as a canonist and theologian, his Eminence is singularly fitted to handle these delicate topics. And ably indeed has he acquitted himself of his task, providing a real storehouse for the student of the Middle Ages. Indeed, he seems to be far superior to any historian of our century in estimating Gregory VII. and Boniface VIII.—those great Popes who, at the time of the Vatican Council, were both in England and Germany so unjustly upbraided. In developing the principles professed by these Popes on the relation between Church and State, the Cardinal has done an undying service, not to Catholic students alone, but to all who look for sound information on questions which, more or less, will continue to claim the attention of statesmen and divines. The theological systems of the Middle Ages are duly set forth in this volume, and in a way which gives striking evidence of the Cardinal's learning. We also become acquainted with the more celebrated and representative canonists of the period—which is precisely the period of a new departure in their studies. Finally, we may mention the chapters which deal with the relations between Church and State, and which explain, very appropriately, the unchanging principles held by the Catholic Church on that topic, and describe the condition of the Church in the several European countries. It is needless to add that the Cardinal throughout gathers from original sources. The foot-notes, we may mention, fully provide for the requirements of students desirous of further research.

BELLESHEIM.

Wilhelm, Cardinal Allen (1532-1594) und die Englischen Seminare auf dem Festlande. Von Dr. ALPHONS BELLESHEIM. Mainz. Franz Kirchheim. 1885.

IN spite of the activity which has been displayed of late years by Catholic pens in this country, a German writer, of great learning and of extraordinary industry, has been beforehand with us in giving to the world a popular Life of one of those Englishmen whose name stands out in a whole generation. The late Fr. Knox, it is true, laboured in the same field, and Dr. Bellesheim has largely used his volumes, which the learned know how to value. Before briefly sketching the outlines of this work, which tells of the life and labours of William, Cardinal Allen, we wish to point out two

things: the excellence of the material used, and the masterly way in which that material has been woven into the narrative. Besides a list of authors consulted which would frighten any but a real worker, Dr. Bellesheim has personally discovered five original documents in the Vatican archives, which are now for the first time brought to the light. They are—1. A letter from the Cardinal Secretary of State to Dr. Allen (September 5, 1580); 2. An interesting letter from Allen to Cardinal Morone, to obtain the privilege of a private chapel for Lady Anna Hungerford (1580); 3. A letter recommending Allen to Cardinal Rusticucci (1585); 4. A letter from the Nuncio at Madrid to Dr. Allen about the failure of the Irish expedition (1581); 5. An interesting document, from the pen of Cardinal Allen, concerning the traitor priest, Gilbert Clifford (February 22, 1588).

With regard to Dr. Bellesheim's work on the Church in Scotland it was remarked that its only fault was its German nationality. The same may well be said of the present volume; either no man is a prophet in his own country, or we have too easily overlooked the labours of our prophet, Cardinal Allen. He it was who kept alive the lamp of the sanctuary during a dark hour of persecution, or, rather, during dark ages of persecution, for the consequences of a good book or a good work are not "interred with the bones" of a good man. Born in the year 1532, William Allen was consequently twenty-seven when the last days of Catholic England dawned upon the land, and that bitter era of penal laws succeeded which only ended at Catholic Emancipation. A partial key to the mystery, to this prolonged triumph of evil is given by Dr. Bellesheim in these words: "One of the greatest dangers of the English Church lay in the undecided attitude of the higher classes, for whom religion possessed only the importance of a conventional form under cover of which purely material interests might be hidden" (p. 2). When it was death to harbour a priest, and death for a priest to exercise any of his spiritual functions, it is evident that the supernatural life of England depended on succour from without of an extraordinary nature. It was William Allen whose burning love of his country was thus utilized in the Divine design to save England from spiritual death. At the time of Elizabeth's accession there was a strong party—it would now be called a highly sensible and liberal party by the world, and by the *Times* as the organ of seemliness and respectability—in favour of the lawfulness of Catholics attending Protestant services. Certain priests went so far as to partake on the same day of "the chalice of the Lord and the chalice of the Devil" (p. 18). From the days of his early manhood William Allen stood forth as an uncompromising Catholic; half-measures were no preparation for the toiling life of a confessor or the ignominious death at Tyburn. It was in 1568 that he founded the English College at Douai as a means of supplying the persecuted English Catholics with missionaries. The weapons of his apostolical zeal in nurturing the "flowers of the martyrs" were twofold: the study of the Bible and that of

theology. During the temporary residence of the Douai College at Rheims Dr. Allen superintended and brought out that translation of the Scriptures which has since been associated with the work of his college itself. The characteristics of the Authorized Version of James I. and of the Douai translation are well defined by Dr. Bellesheim. He says of the first: "The more the Saxon element predominates in English the more it is exposed to the numberless changes which the English language, as a universal language, has undergone in the course of centuries. In the Douai Bible, on the other hand, which took the Vulgate as its standing-point, the greatest weight was given as a matter of course to the unchanging Roman element in the English language" (p. 92). The Douai translators aimed before all things at a literal rendering of the text, whereas the Authorized Version had had beauty of language, notably the "Saxon element," chiefly in view. Dr. Bellesheim further illustrates this difference by the respective translation of the word *δικαιοσύνη*. There is another point in Allen's character which the author does well to dwell upon—viz., his manner of understanding love for his country. It is not easy for us English of to-day to imagine the position of things under Elizabeth's sceptre. Looming in a near distance were the civil dissensions of the Roses, which disquieting memory may have served to increase the servility of Englishmen towards Henry VIII. But now his bastard daughter sat upon England's throne, and her bastard religion called forth a Bull from the Apostolical See which dispensed English Catholics from civil allegiance. If Elizabeth ceased to reign, her crown would pass either to Mary of Scotland and her issue, or to Philip of Spain. Is it wonderful that Allen, who so loved England as to dedicate his whole life to England's spiritual cause, should have heartily embraced an alternative which gave her sceptre indeed to an alien, but her soul back to God? This is what the policy of Spain represented to William Allen, and hence his adherence to Philip II. Sixtus V., who succeeded Gregory XIII., saw with other eyes; he measured the whole bearing of Philip's aspirations, and wished rather to hope that influence might be brought to bear on James of Scotland and Elizabeth of England than to further the Spanish King's pretensions. Allen's policy has to be weighed in the balance of the conversion of England. That was for him the question of life or death. His representative character, his learning and sterling worth, earned for him the honour of a prince of the Church, to which he was promoted in 1587. As a trainer of confessors he eminently possessed the apostolical virtue of poverty. This is illustrated by a touching incident. As he lay on his death-bed, Clement VIII., who was familiar with the state of the case, sent him five hundred crowns for the payment of his doctors. This gift the dying Cardinal promised to repay by intercession when he should be admitted to the Beatific Vision (p. 199). His poverty did not afflict him, but he ascribed to his sins the fact that he died in his bed, and not, as he would have wished, a martyr's death in England. For generations after his death the

missionaries, his children, went on doing their work in the Lord's Vineyard. The college continued up to the French Revolution, and then, as God had other designs for England, its light was extinguished. We must not omit to make a particular mention of Dr. Bellesheim's eloquent concluding words (*Schlusswort*). In times of special darkness and direst misery God raises up men who, like Moses, may, if it be necessary, produce water from the rock. Cardinal Allen's rod was the burning missionary, who returned to his native land only to endure all manner of hardships, and often to die an ignominious death. Thus, if the fountain of living water was not suffered to dry up during those weary centuries, we owe it mainly to that other Moses who would not allow his people to die of thirst. For them he struck the hard rock, and died without seeing the promised land.

The Charity of the Church, a Proof of its Divinity. From the Italian of H. E. Cardinal BALUFFI, Archbishop of Imola. With Introduction by DENIS GARGAN, D.D. Dublin: Gill & Son. 1885.

THE idea and plan of this book are truly excellent. The great work of charity and philanthropy in the Church is traced historically through all the varied departments of human life: the abolition of pagan cruelty and inhumanity, the ransoming of prisoners of war, the extinction of slavery, development of moral and intellectual progress, restriction of tyranny, criminal legislation, education, almsgiving, the relief of the sick poor in hospitals, asylums, hospices, orphanages, penitentiaries, &c.; charity during famine, pestilence, towards the savage and the heathen, charity for the dead, and yet other ways and means of brotherly love. Truly it would be hard to imagine a more attractive subject, or any capable of more interesting and edifying illustration. Cardinal Baluffi, Archbishop of Imola, who died in 1866, wrote the present work, somewhere we presume about 1854 or 1855. It must have been a very complete work for its time. Mgr. Baluffi was not only able to cite a large array of authorities, ancient and modern, but he had himself been in America as Apostolic delegate, and was able to draw illustrations on a large scale from the New World. To translate the work into English was certainly a highly commendable task, but it is most unfortunate that it was *merely* translated, and not brought up to date. Considering that the work is thirty years old, it will be understood that the statistics quoted are in most cases simply ludicrous. We are told (p. 240) that "it is painful, too, to state that in England, and in the very capital, there is a traffic in infants of both sexes, exposed for sale, twice a week, publicly at Bethnal Green." Between pp. 240-242 a quantity of statistics are given about morality, criminals, &c., in England, dating from 1844 and 1847! The condition of the prisons—Birmingham is quoted from the *Times* of 1853, and from one "Joseph Alluoy [*sic*] church-

warden." The only correction made by the translator is (p. 73) to point out the extraordinary statement of the author, that the English Government still tolerates slavery in the Eastern colonies. Yet the unfair remark is allowed to remain that the British Government "emancipated the negroes of their colonies in the West from no higher motive than self-interest." Anachronisms and misstatements are likely to cause the book to do harm rather than good.

There is one more serious blemish that we cannot pass over. It appears that the translation has been made from a French version, though an Italian copy was obtained (p. x.), and presumably consulted. But one is inclined to believe that the translator must be ignorant of Italian, else how to account for the incredible phenomenon that *the Italian footnotes are quoted bodily in Italian*, and not translated? Thus, while the titles of periodicals are needlessly put into an English dress (e.g. "Catholic Review of Louvain"), we actually find entire footnotes like the following:—

Osserverò solo che la popolazione indigena dell' arcipelago di Sandwich, la quale secondo it [*sic*] censo fatto dagli stessi Protestanti nel 1822, era di 142,050 anime, discese nel 1852 a 130,319, e nel 1839 si ridusse a 108,179 soltanto.

Or again:—

Nell mio secondo volume dell' *America un tempo Spagnola* ho descritto questa missione, e le gloriose fatiche de' PP. Cappucini. [*Spelling sic* all through.]

We have marked a dozen or more such notes. The only explanation we can see for these vagaries is that the translator took the Italian notes for the names of books.

We have said enough to show that we have before us a good book spoiled. Dr. Gargan would do an admirable work if he would thoroughly revise and emend the translation, paying special regard to the footnotes (and to such monstrosities as *Sixtus Quintus* (p. 245!)), and entirely re-write the statistical passages. *Then* we should be glad to recommend the book warmly.

Home Duties and Home Difficulties. By the Rev. BERNARD FEENEY, Priest of the Pious Society of Missions. With Preface by His Eminence CARDINAL MANNING. London: James Duffy & Sons.

WE cannot recommend this book more effectively than by quoting a few words from the Preface which the Cardinal Archbishop of Westminster has written to introduce it. "This excellent book," he says, "will be of great use to all readers, but above all to priests who as pastors are engaged in the cure of souls. I earnestly hope that it may be widely diffused, and I pray that the blessing of God may rest upon it." Father Feeney begins by thoughtful and touching chapters on the meaning and influence of "Home," and its place in the councils of God for man's welfare,

and on the life of our Lord at Nazareth as the model of the Christian home-life. He then considers the relations of the home with the Church. Passing on to details, he discusses the duties and privileges of husband and wife, of father and mother. He speaks of parental and filial love, of example, of obedience and reverence due from children, and finally of the relation of master and servant. The little volume ends with the consideration of certain stumbling-blocks, such as drink, unhealthy literature, unthriftiness, and secret societies.

La Démocratie et ses Conditions Morales. Par le Vte. PHILIBERT d'HUSSELL. Ouvrage couronné par l'Académie des Sciences. Morales et Politiques. Paris: E. Plon, Nourrit & Cie. 1884.

WE heartily commend this book to all who will have to speak or write in the coming electoral struggle. They will find here in a small compass a mine of political wisdom and a storehouse of short incisive maxims. Democracy has triumphed in England. Both Tories and Whigs have been obliged to bow down before it. Indeed, some of the Tories have gone so far as to form a sort of clandestine intercourse with it, which has resulted in the production of that little hybrid, Tory Democracy. M. d'Hussell, too, accepts the triumph of democracy as an accomplished fact. He does not waste any time in useless complaint or panegyric. His business is to define, or rather to describe, democracy, to point out its dangers, and to suggest remedies. We wish that we had space to give some account of the way in which he deals with each of these topics. We cannot, however, forbear to mention that he attributes most of the good of democracy to the influence of Christianity, and strongly maintains that, without religion, democracy will run into the wildest excesses. People would do well to bear in mind the following short extracts when they are listening to blustering Liberal or Tory demagogues:—

Electors are naturally inclined to vote for the man who offers most and flatters best. When, however, public men have in this way reached power, they are unable to keep all their promises, and are obliged to break many of their engagements. . . . Hence arises a very singular moral situation, which we are obliged to speak of on account of its influence on the propagation of truth in democratic societies—viz., the necessity of deceiving the people more or less. . . . In order to rise, a man must be extreme; but to maintain his position and to govern reasonably, he must be moderate. Hence the common opposition between the deeds and words of public men. . . . The ordinary statesman in peaceful democracies is a politician who goes in for expedients, who evades his engagements, and backs out of his promises. . . . Mistiness helps to cover retreats and to facilitate transitions. It is the great resource of public men in parliamentary democracies. . . . This is why the art of speech, or rather dexterity of speech, is indispensable to those who reach and retain high positions in democratic States (Introduct., pp. 8-10).

Russian Art and Art Objects in Russia: a Handbook to the Reproductions of Goldsmiths' Work, and other Art Treasures from that Country, &c. Illustrated with Woodcuts. By ALFRED MASKELL. In two parts. Part I. Published for the Committee of Council on Education by Chapman & Hall, London. 1884.

IN 1880, "the desire of the Lords of the Committee of Council on Education to secure for the South Kensington Museum copies of some of the numerous fine examples of English plate and other works of art in the imperial collections in Russia" was officially brought to the knowledge of the Russian authorities, and every means afforded by them for its realization. The outcome of the idea was the journey of several South Kensington experts to St. Petersburg and Moscow to select the objects to be electrotyped or otherwise reproduced; another result, for which students of industrial art will be grateful, is the present handbook. In our notice of Mr. Maskell's work, we propose here to leave aside the subject of English plate, and confine our remarks rather to the domain of works of art either of Russian production or more closely associated with Russia.

Russia has, Viollet-le-Duc says, the character of a laboratory wherein the art of Asia and of Europe have produced a combination between East and West. Mongolian, Scandinavian, Persian, Indian, Byzantine, Lombardic, and West-European influences are no less evident in the material monuments than in the political and historical records of Russia. Long before the Greek message of the Gospel came to them in the tenth century, the Slavonians had maintained constant relations with the metropolis of the Eastern Empire. But at length, with the missionaries, came also artists and architects from Byzantium. Two centuries later, Lombard architects, originally deriving their inspiration from the same fertile parent of Christian art, added another phase of the Byzantine influences; the Greek artists and artificers that came into the country at the marriage of Ivan the Great with the Byzantine Princess Sophia (in 1472) left the indelible character mainly imprinted on the country's productions, and especially upon its ecclesiastical monuments. Religion and art have ever been in most effective alliance in the æsthetic history of nations.

The chief Russian historians differ widely in their estimate of the nature and extent to which the Tatar yoke affected the development of Russia. It cannot, however, be doubted that, although in general Mongol and Muscovite amalgamated just as little as Saxon and Celt have done, a constant commerce of ideas as of merchandise has left its mark in the art productions as in the industrial traditions of Russia, and infused a barbaric element and communicated the infection of Oriental stationariness to which ecclesiastical art was already predisposed by Byzantine hieratism. Thus the Tatar yoke was a fatally effective factor in checking progress during the centuries when Latin Christendom was evolving that outward

expression of its inner being which, for want of fitter words, let us call Gothic architecture and all things that are in harmony therewith.

The more we read her history the less we wonder that Russia, a prey on all sides to foes—Tatars, Swedes, Lithuanians, Poles—torn by faction and undone by venality, has lagged at least three centuries in arrear of Europe, and been absorbed in political consolidation long after other nations have begun their industrial and commercial development.

After the overthrow of the Tatars, we find art again active in Russia in the seventeenth and eighteenth centuries. Western ideas were, so to speak, sucked in with febrile avidity, but were ill assimilated—adopted without judgment, and applied without congruity. To say this is to say that the Renaissance which filled all Europe was taken up in Russia and superadded to the existing semi-barbarism, defaced and debased, and deformed.

"Whether or not there is a Russian art, distinct and national," is a question which confronts the reader on the very first page of Mr. Maskell's volume. If a truly national art is, as we hold, whatever elements it may blend, essentially a unity, and, like language, a corporate, unconscious, and even an involuntary and independent growth, it can never be produced, as contemporary architecture seems well to show, by mere adaptation and mixture. There must be a sufficiently intimate fusion of elements to produce homogeneity in the result. If by national art we understand the outcome and visible sign of a whole people's æsthetic endowment—the distinctive complexion of its material productions from the temples of its worship to the trivial appurtenances of every-day life, a concrete harmonious embodiment of its feelings and strivings, such as have waxed, culminated, and waned in Christendom and Islam—we may well hesitate to acknowledge the possession by Russia of a national style, or art, in this plenary sense.

The task Mr. Maskell has undertaken, however, may half impose an affirmative answer. "Those," he says, "who have given the inquiry the attention it deserves, who have patiently endeavoured to trace the influences which (from the geographical position of the country) have been brought to bear upon the various races roaming over or inhabiting, under one designation or another, the Russia of to-day, will probably have decided that there is an art Russian and national." Here we take serious issue with Mr. Maskell. From our foregoing remarks it will be clear that we consider no meticulous investigation necessary to determine the existence of an art style. *Circumspice*, is all we would say to the inquirer. Obedience to the behest produces belief in the Egyptian, Greek, Saracenic, and Gothic art-worlds; a glance should be equally cogent, could Russia efficiently claim an "art distinct and national." Indeed, we have the vanity to flatter ourselves that Mr. Maskell's experience and observation must have suggested to him conclusions not widely different from our own, which are perhaps betrayed in the sub-title

of his book, which is also its continuous heading—viz., “Art Objects in Russia.” But Mr. Maskell, who seems to draw his information largely, if not mainly, from French and German sources, abstains for the most part from discussing the philosophy of art. Scarcely a mention is to be found throughout his pages of the influence of geography, geology, climate, vegetation, and other physical features which must always largely affect any nation's artistic evolution. His work contains an account of art objects preserved in the two capitals and at the Troïtza monastery, and will prove of the greatest value to the English visitor, putting into his hands a large amount of information, carefully collected and judiciously sifted, from many sources very difficult of access.

Notwithstanding that the Russian museums have been formed much more recently than similar establishments in Western Europe, there is a most deplorable lack of documents relating to the provenance of many of the most important and interesting objects, which, though of unquestionable antiquity, thus lose much of their value as data in the history of art. This hiatus is due, especially in the case of the objects extant from classic times, and which we notice first, and which are probably more widely interesting than any others, to the intrinsic value of so many objects, which have nearly always been discovered in sepulchral tumuli, the burial-places of those tribes who delighted in the lavish use of gold, of whom Herodotus and Strabo have left us records.

The Crimea is thickly dotted with these middens, or *kourgani*, as the Russians call them; nor have the local populations been ignorant of this fact, for numbers of these tumuli have been rifled, formerly by Genoese and Turks and subsequently by Russians, and only in recent times has this process of spoliation been arrested. Even quite lately, where excavations have been conducted under the auspices of the Government and protected by a guard of Russian soldiers, the gold frenzy, unsurpassed in California or Australia, was so great that the precious objects abounding in these burial-places were carried off in large quantities, and the comparatively few antiquities preserved have been secured only with difficulty. Even so recently as 1831, in spite of a military guard, the Government were able to save from the excavations of the Koul Oba tomb objects amounting only to a total weight of about fifteen out of one hundred and twenty pounds which it was estimated were abstracted and dispersed.

The neighbourhood of Kertch, the ancient Panticapæum, more especially abounds with these *kourgani*, which contain the evidences of a past that has little other record. For hundreds of years generations have come and gone; Scythian and Greek, Calmuck and Cossack, Tatar and Turk, and Genoese and Russian, have had their day and their sway upon the Tauric Chersonesus. The colonies and culture of Miletus, Byzantine Christianity and civilization, decadence and barbarism, Frank commerce and Mussulman spoliation, have been the shifting fate of these beautiful shores.

Thousands of students in lands far distant, ever multiplying as the area of civilization dilated, have perused with wonder or slighted with incredulity the records of Herodotus and Strabo, and their stories of the Skouthoi and the Aorsi and the Massagetes, and their armour and ornament; their belts and bridles and trappings, their diadems and armlets of massive gold, and the fabled Arimaspi and griffin-guarded treasure, of more than two thousand years ago. But year after year of this and the preceding century has brought fresh discovery which has corroborated the narrative of these old-world chroniclers, and confirmed the title of the "father of history." The evidence of our senses in the material objects of a daily life, long extinct, left in our hands by recent excavations, retrieves the dim remote past from the haze of myth and mystery, and helps us to a circumstantial picture of that which it is so hard to realize from merely graphic record. We find that during all this period these chiefs of bygone peoples had been lying as they had been laid to rest, with all sepulchral pomp, dight in a rich array of golden mail, with diadems and belts and cups of pure and solid gold. Only implacable time had been slowly effecting its sure work and reducing the frames of heroes to a chalky dust. The golden deckings, that alone remained unchanged, subsided one by one as the corpse collapsed beneath them; the crown rolled off the shrunken skull, and the spangles on the curtains hung around fell as the tissue rotted away, and, in the dead silence, mocked humanity with a jangle unheard save by the vermin denizens of the tomb.

Many of the antiquities saved from these burial-chambers to form the glories of the Museum of the Hermitage, besides their archaeological value, which affords such an insight into a little known past, are moreover of the highest artistic excellence. Such, for instance, is the silver vase found in a tumulus near Nikopol, the possession of which, said M. Thiers when he saw it, "was sufficient to form a *casus belli* with the Russian empire."

The Nikopol vase is a silver amphora with two handles, standing about two feet in height. As regards the general form and contours, it would be difficult to imagine anything more simply elegant. The whole of the surface, with the exception of the neck and handles, is covered with a repoussé decoration consisting of boldly designed foliage, amongst which are placed on each side two large birds and two smaller ones. Both the fauna and flora are without doubt those of the steppes, the larger birds seeming to be the woodcock, which abound there, and the smaller ones a kind of rook or crow.

A singularity of the whole of this repoussé work is that, while on the front of the vase it is in tolerably high relief, as we follow the designs towards the back the relief becomes less and less accentuated, until it finishes in what is scarcely more, in effect at least, than engraving. In no part is the relief so high as to destroy the contour of the vase.

On the upper part or shoulder of the vase the decoration consists of a group of two griffins devouring an animal of the deer kind. On the lower division, in a line from the handle on each side, is one of the three gargoyle-shaped spouts or taps, two of which are formed of a lion's head with a spout in the mouth. In the centre of the front is the third

opening, which is concealed by a magnificent horse's head with extended wings. All three openings were furnished with fine sieves and were closed with taps attached by small silver chains. Probably the use of the vase was for drinks cooled by means of snow in the manner common among the Greeks. . . .

The most remarkable and original part of the decoration of this magnificent vase is the frieze which runs round the shoulder below the handles and beneath the group of the stag and griffins. This is composed of a number of detached figures forming two distinct scenes, one in front and one on the back of the vase. We have here a remarkable representation of a most important part of the daily occupation of the nomad Scythians—the breaking in and training of the wild horses of the steppes. Most curious it is to see here the lassoing and taming of wild horses as it is practised at the present day by the Guachos of South America, and not only so, but in the minuteness of the details we observe characteristic parts of the method of horsebreaking which but a few years ago was introduced into England by Mr. Rarey and excited so much wonder and curiosity.

Perhaps a still more beautiful object is an electrum vase found at the feet of a queen in the Koul Oba tomb. It is ornamented with Scythian groups and scenes which are of extreme interest by their surprising fidelity to the characteristics of the Scythian race, and also to its costume; features of dress such as the capuchon, or *bachelik*, and the mode of tucking the trowsers into the boot are the same as at present.

These two beautiful vases display in a remarkable way the high character of the work produced by the Greek colonies of the Euxine combined with the vivid and skilful portraiture of native scenes. We cannot, however, linger any longer over this interesting part of Mr. Maskell's book, but must leave the reader to its guidance. We hope, however, soon to notice the second part of this handbook, dealing with the mediæval art productions of Russia.

Gems of Chinese Literature. By HERBERT A. GILES, H.B.M.
Vice-Consul, Shanghai. London: Quaritch. 1884.

OUR diplomatic and consular agents are never doing better work than when they are making us acquainted with the manners and customs, the literature and wisdom of the foreign peoples among whom they live. And work of this kind is the more valuable owing to the unusual facilities enjoyed by such officials for becoming masters of the languages and literature of the nations among whom they often pass a good part of their lifetime—advantages not enjoyed by the solitary European scholar in his study or in a library. All this applies with tenfold force to the mysterious peoples of the East. Mr. Giles, our intelligent and learned Vice-Consul at Shanghai, has done good service already in this line. We owe to him a really valuable work, "*Historic China*," besides such lighter but not the less useful sketches as "*Chinese Sketches and Strange Studies from a Chinese Studio*." His new volume is of a still more useful kind. It serves as an admirable supplement to various histories of Chinese

literature, by giving us a collection of extracts of a certain length from all the famous writers of China, from the time of Confucius down to A.D. 1650, a space of 2200 years. The work is well done and thoroughly entertaining. It will deepen the impression of the strange unlikeness between the Chinese and the Western mind and taste, but at the same time will give a favourable impression of the shrewdness and wit of Chinese sages. A great deal of information is scattered through Mr. Giles' pages. It is interesting to know that the historian Ssu-ma Ch'ien (2nd cent. B.C.) is regarded as the "Herodotus of China," and that the epoch of the Sung dynasty (A.D. 900-1200) ranks as the Elizabethan age of Chinese literature. The father of the Marquis Tseng, we find (Tseng Kuo-fau), is reckoned as a distinguished essayist. We had marked a number of interesting passages for quotation, but regret that space will not allow us to give them. Mr. Giles deserves our best thanks for a thoroughly successful book.

The Story of Early and Mediæval Abingdon. By Rev. JOHN PLACID CONWAY, O.P. London: Burns. 1885.

CONSIDERING that no less than thirteen of our English saints, among them St. Dunstan, St. Edmund, and St. Edward the Confessor, have been in a special way connected with Abingdon and its famous monastery, we may be sure that its ecclesiastical history is full of interesting details. In this little brochure the author has collected a goodly multitude of them, and arranged them so as to throw much light on the vicissitudes of the abbey from early British times to the end of the thirteenth century.

A Modern Dædalus. By TOM GREER. London: Griffith & Co. 1885.

THE events described in this story belong to an imaginary future. The hero, son of a Donegal peasant, is sent to college by his father, who ambitions for him a professional career. He avails himself of the opportunity to devote himself to solving the problem of aerial flight, which had been the dream of his early boyhood. He returns home to find his father and brothers sullen rebels and deep in the literature of Russian Nihilism, of German Socialism, of the Italian Carbonari, and of the French Commune. Times have altered. The Tories are in power, the action of the land courts has been reversed, the peasantry are rack-rented and starving, discontent fills the land, while, in Parliament, the Irish leader, at the head of seventy members, revels in a perfect carnival of obstruction. The hero continues his experiments in aerial flight with great success. Driven from home by his father because he will not place his invention, which opens up new possibilities in the project of carrying on war against England, at the disposal of his country, he flies through the air to London. His aerial performances become the grand topic

of the hour in Parliament and out of Parliament. Refusing the offer of an enormous sum of money from the Home Secretary if he will disclose his wonderful discovery, the military value of which is perceived, to the Government, he is imprisoned, but escapes with the help of one of his brothers. He teaches the latter his new art, and together they fly over to Dublin. The country is in arms, and the ex-chief of the Irish parliamentary party has been declared President of the Irish Republic. The hero now places his invention at the service of the rebels. Flying machines are constructed, and a "flying brigade" formed, which carries on war by raining down dynamite bombs and other destructives on the English armies and fleet till the rebels become undisputed masters of the whole of Ireland. The English are at last awakened to the hopelessness of contending against such odds.

The writer declares his abhorrence of the methods of the "dynamite party," but considers that there is a wide difference between the use of dynamite in open war and the use to which it has hitherto been devoted; while he believes that the ideas and forces with which the story deals may at any moment be brought into operation by the irresistible development of the "resources of civilization." The story is told with considerable spirit, but we have not much belief in the judiciousness of writing such narratives.

H. W.

The Relations between Religion and Science. Eight Lectures preached before the University of Oxford in the year 1884, on the Foundation of the late Rev. John Bampton. By the Right Rev. FREDERICK TEMPLE, Lord Bishop of Exeter. Macmillan. 1885.

DR. TEMPLE, the new Bishop of London, has lately published his last year's Bampton Lectures. His subject is one of especial interest to Catholics. We, of all men, are bound to love the truth, whether natural or revealed. We feel more keenly than others when the voice of Science and the voice of Faith seem to disagree. At the present time these two voices seem to be more opposed than ever, and consequently many men are undergoing a severe trial. Any book on the subject is eagerly read, and a discussion is always welcome. Dr. Temple's subject is therefore likely to procure a large circulation for his book. But what is to be said about his treatment of it?

We are glad to see that the book is entitled "*The Relations between Religion and Science*;" the use of the word *conflict* suggesting an essential antagonism between the two, which of course does not exist. The author begins by contrasting scientific and religious belief, and then proceeds to consider in turn the three great questions on which religion and science are apparently opposed—namely, Free Will, Evolution, and Miracles. The contrast between religious and scientific belief is admirably treated. Nothing

could be clearer than the demonstration that the postulate of science, the uniformity of Nature, although ever increasing in generality, can never attain to universality. In the account of religious belief, the greatest stress is laid on the testimony of "the voice within." The outer voice, external evidence, speaks in vain to one who cannot or will not listen to the voice of conscience. When these two voices harmonize, we have the strongest evidence for religion. We need hardly remark that the reader will often be reminded of the "Grammar of Assent." It will be well, however, to give the author's own summary of the contrast between religion and science :

The two begin with the same part of our nature, but proceed by opposite methods. Both begin with the human will as possessing a permanent identity and exerting a force of its own. But from this point they separate. Science rests on phenomena observed by the senses; religion on the voice that speaks directly from the other world. Science postulates uniformity and is excluded wherever uniformity can be denied, but compels conviction within the range of its own postulate. Religion demands the submission of a free conscience, and uses no compulsion but that imposed by its own inherent dignity (pp. 62, 63).

The lecture on Free-will is far from satisfactory. We may note, however, that Dr. Temple disposes of many objections by admitting that the *exercise* of free-will is comparatively rare. Herein we are inclined to agree with him. Our acts are of course free in the sense that we might do otherwise if we chose, but "anti-impulsive effort," as the late Dr. Ward termed it—that is, resistance to the will's impulse—is not very often exercised. The treatment of Evolution (lectures iv. and vi.) is, to our mind, the best part of the book. It will put an end to the difficulties of many believers. We would call especial attention to the proof that the substance of Paley's argument from design has not been affected by the Darwinian theory,* and also to the passage in which this theory is shown to account for much of the imperfection that exists in the world.

The answer usually given is that our knowledge is partial, and, could we see the whole, the objection would probably disappear. But what force and clearness is given to this answer by the doctrine of Evolution, which tells us that we are looking at a work which is not yet finished, and that the imperfections are a necessary part of a large design, the general outlines of which we may already trace, but the ultimate issue of which, with all its details, is still beyond our perception. . . . The very phrase which we commonly use to sum up Darwin's teaching, the survival of the fittest, implies a perpetual diminution of pain and increase of enjoyment for all creatures that can feel (pp. 116-118).

In conclusion, we are told that the antagonism is much more between scientific and religious men than between science and religion. Unreasonable resistance has been followed by unreasonable surrender. It is the duty of religious men "to be patient, to inquire carefully, to study the other side, to wait for light." And, on the other side, "if the man of science would learn what it is that

* Jevons pointed this out long ago in his "Principles of Science."

makes believers so sure of what they hold, he must study with an open heart the Jesus of the Gospels; if the believer seeks to keep his faith steady in the presence of so many and sometimes so violent storms of disputation, he will read of, ponder on, pray to, the Lord Jesus Christ" (pp. 251, 252). Thus the Bishop of London concludes.

Monumenta Vaticana historiam regni Hungariæ illustrantia. Ser. II.
Tom. I. Relationes Oratorum Pontificiorum, 1524–1526.
Budapestini. 1884.

AS far back as 1859, Father Augustine Theiner, the late archivist to the Holy See, issued his "*Vetera monumenta Hungariorum sacram illustrantia.*" The fact that the Vatican archives abound with still other valuable documents referring to the history both of State and Church in Hungary led the Hungarian bishops and many Chapters, in 1882, to undertake their publication. A commission of historians was accordingly appointed, and the publication of the despatches connected with Cardinals Gentili and Campeggio, who acted as Legates, the former in the fourteenth, the latter in the sixteenth century, was undertaken without delay. Whilst Canons Danko, Fraknoi and Knauz were engaged in collecting the documents from the Vatican archives, the Bishop of Neusohl, Mgr. Ipolyi, undertook to contribute the Preface, which is followed by a brilliantly written introduction, in which Canon Fraknoi throws light on the affairs of Church and State in Hungary from 1522 to 1526. The collection is made up of 135 despatches forwarded to Rome by Cardinal Lorenzo Campeggio, whose name, from being associated with Henry VIII.'s divorce, is familiar to readers of English history, and Baron de Burgio, whilst they acted in Hungary as Papal Nuncios. Not a few of these documents have been published before, in Mgr. Balan's "*Monumenta Reformationis Lutheranae,*" which was noticed in *THE DUBLIN REVIEW* of April, 1884. But it is to be observed that the Hungarian collection presents us with each document in its entirety, whereas Mgr. Balan has selected only those parts which refer to the affairs of the German Reformation. For the most part, the Nuncio's and the Legate's letters were sent from Vienna and Buda-Pesth between 1524 and 1526, and are addressed to the Secretaries of State, Mgr. Schomberg, Archbishop of Capua, and Mgr. Sadoletto, the celebrated humanist, or to Pope Clement VII. himself. The letters are concerned with three questions of utmost importance: the contest between Sigismund, King of Poland, and Prince Albert of Prussia, Grand Master of the Teutonic Order; secondly, the union of the Bohemian Calixtines with the Catholic Church (Bohemia then being subject to the crown of Hungary); and, thirdly, the invasion of the Turks. In a remarkable way these documents illustrate the international position of the Holy See. Clement VII. it was who, amongst all European princes, proved himself a real friend to Hungary, not only by the advices he gave through his Legate, but also by contributions of money and

soldiers in the terrible struggle against the Turks. Unfortunately, owing to King Lewis I. of Hungary's imbecility and the division among the parties of the nobility, the Pope could not succeed, and, not many months after Campeggio's departure, the Hungarians were totally defeated by the Turks in the battle of Mohacz, in 1526. Occasionally, but only in affairs of minor importance, the names of Henry VIII. and Cardinal Wolsey are to be met with. The Hungarian bishops and cathedral Chapters, by issuing such a costly volume, which ere long will be followed by the letters of Cardinal Gentili, have rendered splendid proof of their patriotism and love for the Church.

BELLESHEIM.

Flowers and Flower-Lore. By the Rev. HILDERIC FRIEND, F.L.S.
London: W. Swan Sonnenschein & Co. 1884.

THE subject of flower-lore and floral associations is far too vast to be treated satisfactorily by any one individual or in any one book. Mr. Friend's 624 pages, exclusive of notes and index, contain a large amount of information gathered from very varied sources, thrown together in a rather ill-digested and unreadable form, notwithstanding the division into twenty chapters on divers aspects of the subjects, as, *e.g.*, "Bridal Wreaths and Bouquets," "Proverbs of Flowers," "Flowers and the Dead," &c. A certain amount of repetition in such a work is perhaps unavoidable, however tiresome. The book is a copious repertory of curious information, for which the authorities are mostly given in notes at the end, and which is rendered easily accessible for reference by a capital index. Not the least valuable feature in it is the bibliographical list of works on flower-lore or kindred subjects, though, as this class of books is rapidly on the increase, it must soon fall into arrears. We miss Schleiden's "Rose-Geschichte und Symbolik"—the most important work on rose-lore, which should not have been overlooked. Speaking of the shamrock, the author quotes a previous writer to the effect "that the trefoil in Arabic is called Shamrakh, and was held sacred in Iran as emblematic of the Persian triads." Pliny, the author adds (p. 385),

says that serpents are never seen upon the trefoil, and it prevails against the stings of snakes and scorpions. If such were the case, no more suitable emblem could surely have been chosen by St. Patrick, seeing that it is said to have driven all such reptiles from the Emerald Isle. The plants, however, which for a long time have been regarded by the Irish as the true shamrock, and worn on St. Patrick's Day, are, according to Dr. Prior, the black nonsuch, or *Medicago*, and the Dutch clover. . . . In early writers we find that watercress was termed shamrock. It will be objected to the watercress, that its leaf is not trifoliate, and could not have been used by St. Patrick to illustrate the doctrine of the Trinity. But this story is of modern date, and not to be found in any Lives of that saint.

The juniper, the author says elsewhere, has been peculiarly

invested with the power and privilege of putting to flight the spirits of evil, as it had screened the Blessed Virgin and the infant Jesus from the assassins sent after them by Herod. Of such quaint gleanings the volume is full. On p. 112 we find the golden apples of the Hesperides associated with oranges, but it is not mentioned that they have been also held to be apricots. On p. 128 the author quotes from "Ben Jonson's quaint work entitled the 'Tale of a Tub.'" The chapter on plant names is interesting, though the subject has been much more thoroughly treated by Britten and several others. Carnation is coronation; mallow is malva, *μαλάχη*. Fumitory is *Fumus-terra*, earth-smoke, so called "from the belief it was produced without seeds from vapours arising from the earth," or, as Pliny has it, because, like smoke, it makes the eyes water. Brownet is brownwort. It is to be hoped that Mr. Friend, who we believe is preparing a companion volume on Oriental flower-lore, may do justice to his stores of erudition by aiming at more of method and conciseness than the present work exhibits.

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1. *The New Terence at Edgbaston.* By EDWARD BELLASIS.
 2. *The Money Jar of Plautus at the Oratory School.* By EDWARD BELLASIS. London: Kegan Paul. 1885.

FOR those who were spectators of the Latin play at Edgbaston in 1880, 1881, or 1884, these brightly written accounts of the three performances will have a special interest, while they appeal to a wider class of readers as presenting in a popular form an outline of the plot of the "Pincerna" and "Phormio" of Terence and the "Aulularia" of Plautus.

The illustrations in the "Money Jar" add to the interest, and have plenty of character.

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- A Literary and Biographical History; Bibliographical Dictionary of the English Catholics.* From the breach with Rome in 1534 to the present time. By JOSEPH GILLLOW. Vol. I. London: Burns & Oates. New York: Catholic Publication Society Co. 1885.

THIS first volume of Mr. Gillow's great undertaking reaches us at literally the last moment, when making ready for press. We must, however, find room for one word to welcome it, and make known its appearance to our readers. Anything like a review of it must be deferred; indeed, there is not time even to glance over the body of the work. The author's purpose is to give in five volumes, of which this is the first, in alphabetical order of names, "a concise record of the literary efforts, educational struggles, and sufferings for religion's sake, of the Catholics of England down to the present time from that of Henry VIII.'s breach with Rome"—another attempt to supplement and continue the labours of Dodd, which we trust the author will see successfully completed. Many

works of biographical interest have been published of late years, but they are all partial, dealing with localities or members of a particular religious order, &c. ; Mr. Gillow's is to embrace all post-Reformation Catholics of whom knowledge can be obtained from published or MS. sources, priests secular and regular, laity of every rank. The present instalment carries the list to the end of C, and embraces therefore such well-known names as Allan, Berington, Blackwell, Blount, Blundell, Campion, Challoner, &c. We believe that the numerous articles on less known, and to this generation perhaps unknown, names of Englishmen and women who have suffered for or patiently confessed the Faith, will be even more eagerly perused. It is a gigantic undertaking, and we can believe the author's assertion in his preface, that the collection of matter has been "porter's work." Catholics, we expect, will owe him a great debt of gratitude.

Books of Devotion and Spiritual Reading.

1. *The Decay of Faith.* Four Sermons by the Rev. M. GAVIN, S.J. London : Burns & Oates. 1885.
2. *Our Lady of Perpetual Succour.* Translated from the French of the Rev. H. SAINTRAIN, C.SS.R., by Rev. THOMAS LIVIUS, of the same Congregation. With a Preface by the Right Rev. the Bishop of Middlesbrough. Antwerp : Vanos-Dewolf. London : Burns & Oates. Dublin : M. H. Gill & Son.
3. *An Introduction to the Devout Life.* By ST. FRANCIS DE SALES. New Edition. Dublin : Gill & Son. 1885.
4. *The Fact Divine. An Historical Study of the Christian Revelation and of the Catholic Church.* By JOSEPH BROECKHAERT, S.J. Translated from the French by EDMUND J. A. YOUNG. Portland, Maine : McGowan & Young. 1885.
5. *Of Adoration in Spirit and Truth.* By JOHN EUSEBIUS NIEREMBERG, S.J. (Old English Translation.) With a Preface by PETER GALLWEY, S.J. A New Edition. London : Burns & Oates. 1885.
6. *St. Dominic's Hymn Book.* London : Burns & Oates. 1885.
7. *A Manual of Catholic Piety.* By the late Rev. WILLIAM GAHAN, O.S.A. London : Burns & Oates.
8. *Devotions to the Sacred Heart for the first Friday of every Month.* Translated from the French of P. HUGUET, Marist. By a Sister of Mercy. New York : Benziger Brothers. 1884.
9. *A Noble Heart.* From the French of ETIENNE MARCEL. By E. F. R. London : Richardson & Son.

10. *The Little Month of Mary.* Translated from the French of the author of "Golden Sands." By ELLA McMAHON. New York : Benziger Brothers. 1885.
11. *The Daily Prayer Book.* London : Burns & Oates.
12. *Of the Imitation of Christ.* London : Kegan Paul, Trench & Co.
13. *A Pilgrimage to the Heavenly Jerusalem.* By a Poor Clare. London : Richardson & Son.

1. NO task of preacher or teacher seems to be more pressing at this moment than to urge upon Catholics the duty of keeping their faith living and fervent. Therefore Father Gavin's carefully prepared sermons are deserving of a warm welcome from priests and people alike. He traces the decay of faith to four principal sources—to indifference to misbelief, to distrust of the supernatural, to dangerous reading, and to mixed marriages. He treats of each of these important matters in a distinct sermon. In the third sermon—on dangerous reading—he warns his hearers very seasonably against reading Protestant popular theology. He seems to refer chiefly to what he calls "short treatises"—probably those numberless milk-and-water essays, on the "sinfulness of little sins," or the "deepening of the spiritual life," which amiable bishops and deans, diligently making the best of both worlds, produce in the intervals of their social duties. But we wish he had named one or two books of a larger growth, and a more dangerous complexion. For instance, Archdeacon Farrar's "Life of Christ," and the works which have followed it, have done, and are doing, more harm to the purity of faith, in their detestable Protestant ignoring of the supernatural, than any number of essays out of *Good Words*, or Anglican cataplasms for natural deformities. Then, again, if Father Gavin goes on with his subject, he might give us less of the negative and more of the positive. Any preacher who shall contribute to the solution of the question of thorough religious *teaching* for our upper and middle classes, will have done much to prevent the decay of faith. Catholics grow weak in their faith, not so much because they read the *Saturday Review* and George Eliot—though these have their effect—as because they have not studied their own religion and learnt to know it. Faith is not such a "difficult virtue," perhaps, as Father Gavin makes out (p. 43). Faith, or the natural preparation for faith, is quite easy to the millions; faith comes "natural" amid Catholic surroundings. Hence the necessity for creating a Catholic atmosphere for our young people.

2. In a neat volume, well translated by Father Livius, a French Redemptorist tells the history of the celebrated picture now at the Villa Caserta, in Rome, of Our Lady of Perpetual Succour. The narrative is broken up and interwoven with meditation and prayer, so that it may serve for each day of the Month of Mary. The Bishop of Middlesbrough contributes a touching preface, in which he mentions a personal *grazia* received when before this venerated image of Mary.

3. A handy and well-printed edition of the "Introduction" of St. Francis de Sales.

4. This book, published more than a quarter of a century ago, is rather behind the age as a scientific manual of Catholic apologetics. Still, we have no hesitation in recommending this translation. The Catholic evidence, although, as we have said, open to objection in matters of detail, is substantially solid and true. Little is said which the most determined of sceptics could really invalidate; and, on the other hand, the great proofs of the divinity of Christianity and of Catholicism are marshalled and massed together so as to present to the reader or to the preacher a most striking "case" against rationalism. The little book should be put into the hands of any young man who thinks he is an Agnostic.

5. Father Nieremberg's style is well-known. It is that periodic, ornate and pedantic way of writing, of which Jeremy Taylor among ourselves is the best example. In construction of sentence it is the daughter of the Latin of the Humanists; as to its matter, it owes its origin to a time of few books, when nearly everything that had been said by an ancient was more or less novel. This old English translation, prefaced by a few words from F. Gallwey, and now reprinted a second time, will be always welcome to many.

6. This useful hymnbook, with the order of Compline according to the Dominican rite, need only be announced.

7. The popular "Manual of Catholic Piety," by the Augustinian Father Gahan, is here presented to us in an elegant and useful reprint.

8. Père Huguet's devout "method" of consecrating the first Friday of every month to the Sacred Heart is not unknown even to English readers, but this translation will be none the less acceptable. The devotions for each of the twelve Fridays are grounded on one or other of the attributes or perfections of that Divine Heart; they are short, clear and devout, and the translation is fair. There are some notes, or rather, one note, of which the concluding lines are, to say the least, ambiguously expressed.

9. This will be found to be an interesting and edifying little story, competently translated.

10. A bright little Month of Mary, short, fervent and fresh, by the author of "*Paillettes d'Or*," needs no words of ours to recommend it.

11. The "Daily Prayer Book" is a short and well-selected manual of prayer.

12. Copies of two editions, both small, of the "Imitation" reach us from Messrs. Kegan Paul. They are beautifully printed, and cheap.

13. The little work entitled "A Pilgrimage to the Heavenly Jerusalem," by a Poor Clare, is stated to be from an ancient MS. belonging to the Bridgettine nuns of Sion House, Spetisbury. It is a series of short and devout considerations on a life of virtue, on death, and on heaven. For a certain class of souls it would form a good manual of the "points" of mental prayer.

Record of Roman Documents.

BAPTISMAL FONTS.—Permission given for a Baptismal Font in the Church of S. Emidio in the Italian town of Aynone (diocese of Trivento). Opposition offered by the Mother Church on the ground of a custom of 600 years' standing. (*S. C. C.* Jan. 24, 1885.) *Vid. Tablet*, April 18, 1885.

BAPTISMAL FONT, to be solemnly blessed not only on Holy Saturday but also on the Vigil of Whit Sunday, notwithstanding any custom to the contrary. (*S. C. R.*, Dec. 7, 1844.) *Vid. Tablet*, May 23, 1885.

BEATIFICATIONS.—Causes for the beatification of several servants of God were discussed before the Sacred Congregation of Rites on March 28, 1885—viz., John Baptist Vianney, known as the "Curé d'Ars;" John Nepomucene de Ischiderer, Bishop of Trent; Glycerius Landriani, a Member of the Congregation of the Clerks Regular of the Pious Schools, Archbishop of Milan, and nephew of S. Charles. On April 21, was also to be treated the cause of Fra Egidius Maria of S. Joseph, of the Alcantarins of the Province of Lecce. A petition was presented to the Holy Father by the Flathead tribe of American Indians, asking for the Canonization of the Iroquois Virgin, Catherine Tegahkwita, and of two Jesuit Martyrs, Father Isaac Jouges, murdered in 1646 by the Iroquois Indians, and René Goupil, a novice, put to death by Mohawks in 1642. *Vid. Tablet*, April 11, 1885, and May 16, 1885.

The Sacred Congregation of Rites recognizes as valid a process instituted by the Episcopal Curiae of Bologna, Jesi, and Cremona, relative to some miracles attributed to the intercession of the Venerable Servant of God, Anthony Mark Zaccaria, founder of the Congregation of Regular Clerks of S. Paul, known as Barnabites. (*S. R. C.*, April 13, 1885.) *Vid. Tablet*, May 16, 1885.

BOOK CONDEMNED, entitled "Religion in Science and Tyranny of Conscience," by Professor Cichitti-Suriani, of the "Italian Catholic Church," with a preface by Mgr. G. B. Savarese. (*S. C. Ind.*, March 23, 1885.) *Vid. Tablet*, April 18, 1885.

CONSENT OF PARENTS not required as a condition for marriage, especially when their opposition is vexatious and unreasonable. (*S. C. C.*, Jan. 24, 1885.) *Vid. Tablet*, May 9, 1885.

DEMOLITION OF CHURCHES.—A request from the Confraternity of Mercy at Narni asking for permission to pull down and turn to secular purposes the Church of S. John, on the grounds of their own poverty, the distance of the Church, the damp condition of its walls and foundations, &c., rejected. (*S. C. Ep. et Reg.*, Feb. 1885.) *Vid. Tablet*, May 16, 1885.

S. FRANCIS, CORD OF.—The Decrees applying directly or indirectly to the Archconfraternity of the Cord, gathered together by Father

Jarlath Prendergast, O.S.F. *Vid. Cord of S. Francis*, by Father Prendergast; also *Tablet*, May 2, 1885.

GOOD COUNSEL, OUR LADY OF.—The New Mass and Office lately issued by the Sacred Congregation of Rites are made obligatory for those Orders and dioceses in which the Feast is kept, and are to be substituted for every other Mass and Office of Our Lady under this title. (*S. C. R.*, Dec. 18, 1884.) *Vid. Tablet*, April 4, 1885.

INDULGENCES FOR PRIESTS.—Indulgences granted for several of the prayers usually said before and after Mass, which may be found in Missal, Breviary, &c., marked as to be said *pro opportunitate Sacerdotis*. (*S. Cong. Indulg.*, Dec. 20, 1884.) *Vid. Tablet*, Jan. 31, 1885.

PARISH PRIEST, elected by the people, but rejected by Chapter in whose hands lies the bestowal of the benefice, and by Bishop on the score of irregularity in the election, and of incapacity. Their decision confirmed by Rome. (*S. C. C.*, Sept. 6, 1884.) *Vid. Tablet*, Jan. 24, 1885.

PROCESSION ON CORPUS CHRISTI.—In this Procession the Blessed Sacrament is carried by the celebrant, not necessarily by the highest dignitary. (*S. C. R.*, Aug. 3, 1839.) The Confraternity of the Blessed Sacrament takes precedence of other Confraternities in these processions. (*S. C. R.*, Aug. 17, 1833.) The canopy, or at least the *umbrella*, must be carried over the Blessed Sacrament. (*S. C. R.*, May 9, 1857.) The Cope is obligatory, even in the poorest churches. (*S. C. R.*, May 9, 1857.) The Blessed Sacrament is always carried in the hands. (*S. C. R.*, Jan. 10, 1852.) It is not becoming in these processions to sing anything in the vernacular. (*S. C. R.*, March 21, 1609.) For these and other similar decrees, *Vid. Tablet*, May 30, 1885.

"ROMANOS PONTIFICES," INTERPRETATION OF BULL.—The Anglo-Benedictine Congregation are declared to be subject to the visitation of the Bishop in all that concerns the administration of their Missions, and their Mission receipts and expenditure, by virtue of the Constitution, *Romanos Pontifices*. (*S. C. Prop.*, March 7, 1885.) *Vid. Tablet*, March 28, 1885.

SALFORD, NEW FEASTS FOR.—By special Indult, the Holy Father has granted to the Diocese of Salford, nine new feasts, including two of our Divine Lord's Childhood, and three in honour of the Blessed Virgin Mary. (*S. R. C.*, Nov. 20, 1884.) *Vid. Tablet*, Dec. 27, 1884.

TITLES AND DISTINCTIONS FOR THE CLERGY.—A circular letter from the Sacred Congregation of the Council recommends Bishops to encourage the Clergy to "be zealous for the better gifts," not to seek earthly honours; and warns them that titles are to be given rarely and only to those of approved excellence. (*S. C. C.*, Sept. 16, 1864.) *Vid. Tablet*, June 6, 1885.